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CONSUMERS' RESEARCH

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August 1948

CONTENTS

Automobiles

1948 Automobiles (13 Models, Including 1949 Ford and Mercury)..... 5

Food

Mayonnaise..... 10

For the Home

Small Air-Conditioning Units..... 12
Fire Extinguishers Containing Methyl Bromide..... 18

Radios and Phonograph Equipment

GE Preamplifier for the Variable Reluctance Pickup..... 22
CR's Ten-Watt High-Fidelity Triode Amplifier..... 31

Miscellaneous

Note to Subscribers Who Write to CR..... 11
Toilet Soaps—CR's Report on 20 Brands.... 16
Electric Hair Clippers..... 23

Features

Off the Editor's Chest..... 2
The Consumers' Observation Post..... 3
Brief 1948 Cumulative Index..... 21
Phonograph Records....Walter F. Grueninger 25
Ratings of Motion Pictures..... 27

CONSUMERS' RESEARCH

Vol. 22 • No. 2 **BULLETIN** August 1948

Off the Editor's Chest

IN THESE DAYS when many radio stations, newspapers, and magazines offer programs and departments that profess to supply answers to nearly any question under the sun free of charge, it is perhaps not surprising that some Consumers' Research subscribers, and their friends, assume that CR can offhand, and by return mail, provide them with information of the most complex and detailed and often highly technical nature. It is flattering to be considered the fountainhead of all consumer wisdom—and of wisdom on a lot of matters unconnected with ultimate consumers' goods—but we at CR are under no illusions about the limitations both of our personnel and our funds. Both, of course, we must endeavor to use to best advantage by concentrating on testing and preparing reports of our findings for presentation in CONSUMERS' RESEARCH BULLETIN, where our efforts best serve the greater number of subscribers rather than a favored few.

Rather often, securing and supplying all the data and information asked for in letters and phone calls would involve the expenditure of several hundred or a thousand dollars' worth of time on the part of CR's staff and consultants. Here, for example, is one batch of problems recently propounded:

> We intend to build a ranch home with no cellar, and just one floor. What is the best heating system, in your estimation, to use: the radiant heat in the cement floor or along the baseboard? We would have to use oil for fuel as gas cannot be supplied. Is it the hot water heat that is used for radiant heat? Does this heating system prove efficient and satisfactory? What is the best automatic electric washing machine on the market? What is the best electric refrigerator on the market?. . . What is the finest electric stove that you recommend; also the best rubber sponge mattress?
>
> These are a lot of questions we would appreciate if you would advise us. . . .we have subscribed to your magazine for quite a number of years.

CR has published an article on panel heating which would supply some, no doubt, of the information our subscriber was seeking, but his particular questions on the subject could be completely answered only on an individual consulting basis by an engineer able to examine the plans and specifications of the home in detail, taking into consideration the location of the house, nature of soil, type of construction, number of rooms, their size, and other factors, after a study had been made of his personal problems and requirements.

As for advising what is *the best* appliance on the market in a particular field, that is a question which is most easily answered by a person who doesn't know too much about the subject—a writer of advertising copy, perhaps. There are some which give excellent performance with poor economy, some fair performance, and some poor, but which is best of those rated as *A. Recommended*, for an individual purchaser, is a decision that the consumer can make only for himself, considering

(*Continued on page 19*)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, Helen P. Alleman, A. R. Greenleaf, Charles L. Bernier, and Dwight C. Aten. Editorial Assistants: Mary F. Roberts and B. Beam.

Symbols used to indicate sources of data and bases of ratings: **A**—recommended on basis of quality; **AA**—regarded as worthy of highest recommendation; **B**—intermediate with respect to quality; **C**—not recommended on basis of quality; **cr**—information from Consumers' Research's own tests or investigations; **1, 2, 3**—relative prices, **1** being low, **3** high. Note that price and quality are completely differentiated in CR's listings; **a quality judgment is independent of price**; 47, 48—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least 5 weeks before it is to take effect, accompanying your notice with statement of your old address with name in full. At least a month's notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

¶*CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.*

★★★For a brief cumulative index of 1948 BULLETINS preceding this issue, see page 21.

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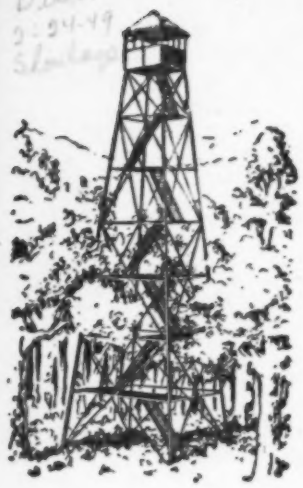


The Consumers' Observation Post

NEW USES FOR "SOAPLESS SOAPS" or synthetic detergents are being dreamed up these days. It appears that they have even been recommended for use in the preparation of food. One technical journal reports that household detergents in small amounts added to the rinse water are helpful in removing insects and grit from vegetables such as spinach and other greens. It is understood, of course, that the vegetables will subsequently be thoroughly washed to remove all traces of the detergent. The journal also remarks that at least one detergent (name not given) has been employed in commercial cake mixes to produce a light fluffy product. This we think is carrying the matter much too far.

* * *

FINGERNAIL TROUBLES due to the use of "base" polish have been reported. The products are comparatively new and are designed to serve as a foundation for the usual colored nail lacquer. Some women find that the use of this "base" makes their nails discolored, thin, brittle, and inclined to buckle, according to two physicians speaking before a convention of the American Medical Association. The first symptom of difficulty is under-the-nail hemorrhages. After three days of the use of Everon, in two cases reported in the Journal of the American Medical Association, the finger tips became tender and slightly swollen, followed by hard thickening of the nail bed and loosening of the fingernails, with discoloration of the nail.

* * *

THE SO-CALLED "BOTTLED GAS" is a convenient fuel for those who live in localities where there are no city gas mains. It is not, however, an unmixed blessing, and certain precautions must be taken to ensure safety in its use. Installation of tanks and piping should be foolproof and leakproof, advises Aubrey G. Robinson, New Hampshire Fire Marshal. Bottles, tanks, and cylinders, as well as regulating equipment should always be installed outside a building, preferably on the north or shady side and never near cellar or other windows or doors. All shut-offs and valves should be checked for leakage regularly and all containers should be regularly inspected by the distributor. If the distributor's men are careless or casual in their handling of piping, tanks, and valves, it will be advisable to change to another supplier, if possible.

* * *

HOME PERMANENT WAVES are not legal in New York State, or at any rate a woman must be licensed to give herself one, according to a discovery made by State Assemblywoman Genesta Strong. Furthermore, a woman must not only be licensed to give herself a home permanent, shampoo, or facial, but she would be required to have a license to help her daughter or a friend perform any of these services. Drug and Cosmetic Industry, which called attention to Mrs. Strong's researches, also noted that she has been prompt to introduce an amendment to permit non-competitive (non-commercial) home hairdressing.

* * *

SUMMER SHOES need the proper kind of cleaning not only to keep their good appearance but to make them last longer, advises the U. S. Department of Agriculture. After white shoes are cleaned, they should be allowed to dry thoroughly before they are worn. It is best, too, to put them on shoe trees or stuff them with tissue paper before the cleaning process. Shoes that are grass-stained may be treated with a solution of sodium perborate or peroxide to lighten the stain. First clean off the old polish, then brush with the solution of perborate or peroxide, working rapidly to avoid undue wetting of the shoes. Then rinse thoroughly with water and apply white shoe cleaner or polish.

FLAVOR OF FOOD was at one time an index of its quality. Now, to provide flavor, modern food chemistry has developed monosodium glutamate, a substance which the Chinese obtained from a certain type of seaweed and have used for centuries to season bland-tasting rice and vegetables. It has the effect of intensifying a food's natural flavor without changing it. According to a write-up of this material in The Wall Street Journal, monosodium glutamate is even sprinkled on sirloin steaks served at the swank Pump Room in Chicago's Ambassador East Hotel, to give an extra something to their flavor. (One might ask why any good restaurant's steaks would need to be "stepped up" in flavor.) The glutamate is also added to various dehydrated soup mixes to make them palatable, to vegetables that have stood on the steam table too long, to cheese, cooked cereal, bread, and even in one Chicago restaurant, to coffee to add aroma and flavor. Several plants are getting ready to turn out the stuff by the million pounds from corn or soybean protein and from high-protein by-products of wheat and sugar beet processing. It is certainly going to simplify matters to cook up any old vegetable and just add a pinch of monosodium glutamate to make it taste like something from the kitchen of a master chef, but, if such practices become widespread, the doctors will do a thriving business treating vitamin deficiencies, or some other troubles that come from chemically modified foods that taste like what they aren't.

* * *

CELLOPHANE, a type of moistureproof transparent wrapping material, is no longer the exclusive trade name of a product put out by the du Pont Company. Recently, the U. S. Department of Justice instituted an anti-trust suit against that manufacturer charging, among other things, unfair competition in keeping out competition by expanding production and cutting prices. The charge has frequently been made that the D. of J.'s recent anti-trust moves against certain companies were motivated by bias or a desire for publicity, and it is certainly difficult for the average intelligent consumer to understand just why an increased output of a commodity at lower prices could ever be considered reprehensible or to warrant anything but governmental praise and encouragement. The price of cellophane, according to Fortune, has dropped from its original price of $2.65 to 42 cents a pound. The company quite properly points out that if the Department of Justice is able to sustain the theory that the practice of expanding the development and sale of a product at ever-lower prices is in violation of law and of the public's rights, it may well be that certain manufacturers will be unable to continue their policies of making new and better products available to the public at lower prices. In this particular case, it would certainly appear that while the Department of Justice may be protecting less efficient manufacturers of cellophane, it is certainly acting against the interest of consumers, the job it is supposed, by taxpayers, at least, to be working at, in the anti-trust field.

* * *

WOMEN EAT LESS FOOD than men, and considerably less protein, according to a recent study. The New York State Food Commission made a survey of sample groups including industrial workers in three plants. From food records submitted by 921 women and 268 men workers, it was found that the average daily protein intake of the men was 96 grams a day as contrasted with 59 grams average for the women. Men were the heaviest meat eaters with an average of 78 percent eating two or more servings a day, while only 29 percent of the women had that much. The men also ate better breakfasts which usually included eggs and cereal along with bread or toast. The women generally were poor breakfast eaters. If these findings are typical of conditions throughout the country, it explains why nutritional anemia among women has been widespread. Women generally need to be educated to the importance of eating more eggs and meat.

* * *

BALL-POINT PENS were once a much-prized possession, and even when priced at $12 or more were in great demand. They did not give really satisfactory performance in most cases, as CR has pointed out from time to time, much to the wrath of the manufacturers who were reaping a harvest from customers who fell for their extravagant advertising claims. It now appears that the merchandising of high-priced ball-point pens was an opportunity for a wise businessman to

(The continuation of this section is on page 29)

1948 Automobiles
(Including Some 1949 Models)

Editor's Note:
THIS is the second of a series of reports on the 1948 and some 1949 automobiles. It is expected that in our next issue comparative ratings in tabular form will be presented. The ratings which are being assigned the cars reported upon in the several articles *must be regarded as tentative and subject to change when fuller data are in and have been studied and checked.* The figures given for brake factor are indicative of the probable life of the brake linings and are obtained by dividing the total area of the brake linings in square inches by the "curb weight" of the car plus 750 lb. (450 lb. for 4-passenger cars). This report is not based on exhaustive tests, but on the opinions of several well qualified automotive engineers. Since new, relatively untried features are involved in many of the cars, later information may require a number of changes in these tentative ratings.

Price Group 1

B

Chevrolet Stylemaster. $1276 f.o.b.; $1390 delivered N.Y.C. Cars are coming through "loaded" with about $500 worth of accessories. Engine: 6 cylinder, valve-in-head, 3½ in. bore x 3¾ in. stroke; 216.5 cu. in. displacement; 90 hp. at 3300 rpm.; taxable hp., 29.4; compression ratio, 6.5 to 1, somewhat high considering use of only 3 rings per piston, and may result in oil burning as engine wears. Engine oil capacity, 5 qt.; cooling water, 15 qt. Gear ratio, 4.11 to 1 (3.73 to 1 optional). Battery, 15-plate 100-amp.-hr. (adequate). *Sizaire* type independent wheel suspension with sway bar. Wheelbase, 116 in.; over-all length, 198 in. Tire size, 6.00 x 16 (overloaded). Brake area, 158 sq. in.; brake factor, 39. Road clearance, 7½ in., insufficient for rough country driving. Seat widths, front 54½ in., rear 49 in. Chrome plating of poor quality. Fenders very thin. Finish and rust resisting quality not good. Some trouble reported from oil-line clogging. 16-gal. gas tank. Manually operated choke (desirable). Reported performance, 20 to 21 m.p.g. for country driving, 17 to 18 in normal city driving. A fairly good and economical family car with good riding qualities but in CR's judgment is a car that for best performance should be given exceptionally good care, including storage indoors under good conditions. Weight, 3270 lb. (price per lb., 42.5c).

Chevrolet Fleetmaster. $1345 f.o.b.; $1460 delivered N.Y.C. A "de luxe" model of the *Chevrolet Stylemaster.* Weight, 3305 lb. (price per lb., 44c).

Chevrolet Fleetline. $1371 f.o.b.; $1498 delivered N.Y.C. A "super de luxe" model of the *Chevrolet Stylemaster.* Weight, 3305 lb. (price per lb., 45c).

Price Group 2

A

Oldsmobile Series 66, 6 Cylinder. $1556 f.o.b.; $1619 delivered N.Y.C. *Hydramatic* transmission, $150 extra. Engine: 6 cylinder, L head, 3½ in. bore x 4⅛ in. stroke; 238 cu. in. displacement; 100 hp. at 3400 rpm.; taxable hp., 29.4; compression ratio, 6.5 to 1. Engine oil capacity, 5 qt.; cooling water, 18.5 qt. *Sizaire* type independent front wheel suspension, coil springs for rear suspension, both front and rear equipped with sway bars. Wheelbase, 119 in.; over-all length, 204 in. Tire size, 6.00 x 16 (overloaded); *DeLuxe* tire equipment, 7.60 x 15 (adequate). Braking area, 159.8 sq. in.; brake factor, 37. Road clearance at front, only 7⅛ in., which makes car poorly suited to rough-country service. Body windows are small, giving limited vision, particularly to tall people. Seat widths, 57 in. front, 48 in. rear. Headroom low for persons in rear seat. Reported performance, 17 m.p.g. in level country free from traffic interruptions or hills. *Hydramatic* transmission, although claimed to give 20 m.p.g., has not from owners' records indicated any saving over regular transmission. Battery, 15-plate 100-ampere-hour. As 1948 models differ only slightly from 1947, a relatively high depreciation loss on sale or turn-in can eventually be expected on the 1948 car. Weight, 3525 lb. (price per lb., 46c). NOTE: *A* rating applies only to cars with standard transmission. With *Hydramatic* transmission, this car would tentatively receive a *B+* rating.

Dodge De Luxe. $1457 f.o.b.; $1654, including fluid drive, delivered N.Y.C. Engine: 6 cylinder, L head, 3¼ in. bore x 4⅜ in. stroke; 230 cu. in. displacement; 102 hp. at 3600 rpm.; taxable hp., 25.35; compression ratio, 6.7 to 1. Engine oil capacity, 5 qt.; cooling water, 15 qt. Battery, 15-plate 95-ampere-hour capacity (somewhat small for cold climate use). Equipped with automatic choke of a superior type. *Sizaire* type independent front wheel suspension with sway bar. Wheelbase, 119.5 in.; over-all length, 204.5 in. Road clearance, 7.5 in. (insufficient for rough country driving). Tire size, 7.10 x 15 (slightly overloaded). Tires are difficult to remove from rims without special tools, and tools provided with car were not suitable for this purpose. Braking area, 173.5 sq. in.; brake factor, 42. Hand brake, which operates only on drive shaft, will not prevent car from shifting when rear wheel is jacked up. Heavy strong body with safety plate glass throughout. When ignition key is removed, starter cannot function—very desirable from

safety standpoint with young children in car. Equipped with fluid drive, which is not as fast in starting as conventional type, though difference is slight. Performance reported by owners, 20 to 22 m.p.g. except in city traffic conditions. Seat widths, 52 in. front, 51 in. rear. As 1948 models differ only slightly from 1947, a relatively high depreciation loss can eventually be expected on the 1948 car. This car is judged to be a good family and business car for normal driving needs. One consultant considers it the most comfortable-riding car in lower-priced group on the market. Weight, 3405 lb. (price per lb., 48.6c).

Oldsmobile Series 68, 8 Cylinder. $1614 f.o.b.; $1675 delivered N.Y.C. Engine: 8 cylinder in line, L head, 3¼ in. bore x 3⅞ in. stroke; 257 cu. in. displacement; 110 hp. at 3600 rpm.; taxable hp., 33.8. Battery judged rather small for this car in cold climate service. Except for 8-cylinder engine giving 10 more hp., this car is the same as the 6-cylinder model. Owners report 16 to 18 m.p.g. in country driving. Weight, 3640 lb. (price per lb., 46c).

B+

Ford 6, 1949. $1293 f.o.b.; $1510 delivered N.Y.C. Essentially the same as *Ford 6 Custom*, but lacked some refinements, all believed to be of a minor nature, such as wheel rings, electric clock, etc. Weight, 3110 lb. (price per lb., 49c).

Ford V8, 1949. $1375 f.o.b.; $1599 delivered N.Y.C. Same as *Ford V8 Custom*, except for lack of some refinements considered minor. Weight, 3155 lb. (price per lb., 50.6c).

Ford 6, 1949, Custom. $1405 f.o.b.; $1650 delivered N.Y.C. Engine: 6 cylinder, L head, 3.3 in. bore x 4.4 in. stroke; 225.9 cu. in. displacement; 95 hp. at 3300 rpm.; taxable hp., 26.1; compression ratio, 6.8 to 1. 4-ring pistons (desirable). Engine oil capacity, 5 qt.; cooling water, 17.3 qt. Gear ratio, 3.73 to 1; with overdrive ($90 extra), 4.10/2.87 to 1. Battery, 17-plate, 100-amp.-hr. *Sizaire* independent front wheel suspension (never before used by Ford) of good design. Wheelbase, 114 in.; over-all length, 196.8 in. Road clearance, 7.6 in. Tire size, 6.00 x 16 (overloaded); 6.70 x 15, optional at extra cost. Braking area, 176 sq. in.; brake factor, 45.6. Brakes of self-energizing type requiring less pedal pressure than formerly. Some dealers claim about 22 m.p.g. in country driving. Road visibility has been improved by increasing height and width of windshield and shortening hood (20% increase in area in windshield, 88% increase in area of rear window). Seat widths, front 57 in., rear 60 in. Body has been moved forward 5 in., bringing seats entirely between axles and helping produce a smoother ride. Instrument panel illuminated with "black light" (desirable). Now has desirable built-in ventilating system. New engine arrangements provide good accessibility of parts for adjustment or repair. Body design resembles a combination of *Kaiser-Frazer* and *Studebaker*. Body construction relatively rigid and strong, but as with other "new look" cars in the 1948 market, safety and protection of passengers in case of serious accident have to some degree been sacrificed. Body finish, baked enamel of high quality and good appearance. Many new features of engineering and design of this car make it competitive, in effect (so far as can be judged prior to a period of experience with many cars on the road), with such cars as *Pontiac*, *Oldsmobile*, etc. Though entirely new in body and chassis, it has a proven power plant. With minor exceptions, it uses no elements that are untried in the industry; CR considers that there should be relatively few "bugs" to be worked out. However, until sufficient time has elapsed to judge the performance and freedom from complaints in actual service of this radically modified *Ford*, the *Ford* line will tentatively be rated *B+* (pursuant to the position taken in connection with *Hudson 6*, July 1948 Bulletin, p. 15, col. 2). Nevertheless, on the basis of present information and expectations, we consider it likely that the new *Ford* may prove to be an exceptionally fine car. The fitting of doors on the new *Fords* is understood to have been faulty in early production in some cases, and one car examined by CR after being driven about 1000 miles was found to be very poorly sealed against entrance of dust, both into the passenger space and into the trunk. (The amount of dust deposited in the trunk space was intolerably large.) This fault, however, would appear to be one that can be corrected by dealers by addition of proper gaskets or seals on doors and elsewhere. Weight, 3110 lb. (price per lb., 53c).

B

Pontiac Torpedo 6. $1512 f.o.b.; $1590 delivered N.Y.C. (semi-automatic transmission available at $160 extra). Cars are coming through loaded with $400 to $525 worth of extra accessories. Engine: 6 cylinder, L head, 3-9/16 in. bore x 4 in. stroke; 239.2 cu. in. displacement; 90 hp. at 3400 rpm.; taxable hp., 30.4; compression ratio, 6.5 to 1 (7.1 to 1 optional, but not recommended by CR). Engine oil capacity, 5 qt.; cooling water, 18 qt. Gear ratio, 4.1 to 1 (3.9 or 4.55 to 1 optional). Battery, 15-plate 100-amp.-hr. (adequate). *Sizaire* type independent front wheel suspension. Wheelbase, 119 in.; over-all length, 204½ in. Tire size, 6.00 x 16 (overloaded). Brake area, 159 sq. in.; brake factor, 38. Road clearance, 8⅛ in. Seat widths, front 57½ in., rear 49 in. 17-gal. gas tank. Chrome plating of relatively poor quality. Reported performance, 17 m.p.g. in country driving, 14 to 15 in city driving. The *Pontiacs* are practically identical in chassis and body and price with *Oldsmobile* and are a little bigger than *Chevrolet* which costs about $100 less. It is therefore difficult to see what, from the consumer's standpoint, *Pontiac* offers in the General Motors series. Weight, 3480 lb. (price per lb., 46c). Tentative rating with *Hydramatic*, *B—*.

Pontiac Torpedo 8. $1559 f.o.b.; $1640 delivered N.Y.C. Except for 8-cylinder engine having 14 more hp. than the 6, this car is practically the same as *Pontiac Torpedo 6*, which is the preferred car of this make. 15-plate 100-amp.-hr. battery, considered somewhat too small for cold weather service. Weight, 3555 lb. (price per lb., 46c).

Pontiac Streamliner 6. $1598 f.o.b.; $1675 delivered N.Y.C. Has same engine as *Pontiac Torpedo 6* but 3 in. longer wheelbase and 6.50 x 16 tires which are slightly overloaded. Practically same as *Oldsmobile 6* except for name plate and a few fittings. Weight, 3610 lb. (price per lb., 46c).

Price Group 3

A

Oldsmobile Series 76, 6 Cylinder. $1659 f.o.b.; $1722 delivered N.Y.C. Same as the *Oldsmobile Series 60*, 6 cylinder, except for a 125-in. wheelbase; over-all length, 213 in., somewhat better upholstery and fittings, and better rear bumper protection. Tire size, 6.50 x 16 (overloaded); de luxe tire equipment, 7.60 x 15 (slightly overloaded). Braking area, 160 sq. in.; brake factor, 36. Weight, 3715 lb. (price per lb., 46c). ¶Tentative rating with *Hydramatic* transmission, *B+*.

Oldsmobile Series 78, 8 Cylinder. $1717 f.o.b.; $1779 delivered N.Y.C. This car is the same as the *Oldsmobile Series 60*, 6 cylinder, except for 125-in. wheelbase, somewhat better upholstery and fittings, and better rear bumper protection. Tire size, 6.50 x 16 (overloaded); de luxe tire equipment, 7.60 x 15 (slightly overloaded). Brake area, 181.1 sq. in.; brake factor, 39. Weight, 3835 lb. (price per lb., 46c).

De Soto De Luxe, $1551 f.o.b.; $1840 delivered N.Y.C. *Custom* model, $1890 delivered N.Y.C. Fluid drive extra. Engine: 6 cylinder, L head, 3-7/16 in. bore x 4¼ in. stroke; 236.6 cu. in. displacement; 109 hp. at 3600 rpm.; taxable hp., 28.36. Compression ratio, 6.6 to 1. Engine oil capacity, 5 qt.; cooling water, 17 qt. Gear ratio, 3.9 to 1. Battery, 17-plate, 110-amp.-hr. (adequate). *Sizaire* type independent front wheel suspension. Wheelbase, 121.5 in.; over-all length, 207.5 in.; road clearance, 8 in. Tire size, 7.60 x 15 low pressure (adequate). Braking area, 173.5 sq. in.; brake factor, 41. Hand brake located on drive shaft, not protected and open to all weather conditions, suited only for parking (may be dangerous when jacking). 17-gal. gas tank. Body of pre-war width and design; front seat width, 52 in.; rear, 51 in. Reported by owners to give 15 to 16 m.p.g. in city driving, 18 to 19 m.p.g. in country driving. This car is essentially a "stripped down" model of the *Chrysler Royal*. As 1948 models differ only slightly from 1947, a relatively high depreciation loss can eventually be expected on the 1948 car. Weight: *De Luxe*, 3450 lb.; *Custom*, 3455 lb. (price per lb., 51c).

Chrysler Royal. $1661 f.o.b.; $1960 delivered N.Y.C. Fluid drive and automatic transmission $95 extra. Engine: 6 cylinder, L head, 3-7/16 in. bore x 4½ in. stroke, 250.6 cu. in. displacement; 114 hp. at 3600 rpm.; taxable hp., 28.36; compression ratio, 6.6 to 1. Engine oil capacity, 5 qt.; cooling water, 17 qt. Battery, 17-plate 120-amp.-hr. (judged ample). Automatic choke of a superior type. *Sizaire* type independent front wheel suspension with sway bars front and rear. Wheelbase, 121.5 in.; over-all length, 210¾ in.; road clearance, 8 in. Tire size, 7.60 x 15 (slightly overloaded). Braking area, 173.5 sq. in.; brake factor, 39. Emergency brake, which operates on drive shaft, is exposed to all road dirt of driving; is suitable for use only as parking brake and will not hold car when jacking a rear wheel. Safety plate glass throughout. As 1948 models differ only slightly from 1947, a relatively high depreciation loss (decline in "book value") can be expected eventually on the 1948 car. Performance reported by owners: 18 m.p.g. in country driving, 14 to 16 m.p.g. in city traffic. Starter cannot function when ignition key is removed (a desirable arrangement). Seat widths, 52 in. front, 51 in. rear; headroom at rear, 36½ in. Weight, 3680 lb. (price per lb., 53c).

A–

Dodge Custom De Luxe. $1507 f.o.b.; $1722 delivered N.Y.C. Same car throughout as *De Luxe* model but with "custom" equipment. Weight, 3430 lb. (price per lb., 50c).

Buick, Series 40. $1673 f.o.b.; $1748 delivered N.Y.C. Engine: 8 cylinder, valve-in-head, 3-3/32 in. bore x 4⅛ in. stroke; 248 cu. in. displacement; 110 hp. at 3600 rpm.; taxable hp., 30.63; compression ratio, 6.3 to 1. Engine oil capacity, 5½ qt.; cooling water, 13 qt. Gear ratio, 4.45 to 1 (4.1 to 1 optional). Battery, 15-plate 100-amp.-hr. (somewhat small for this car). *Sizaire* type independent front wheel suspension with sway bar in front. Hand brake applied by foot, released by hand. Wheelbase, 121 in.; over-all length, 207½ in. Tire size, 6.50 x 16 (overloaded). Brake area, 161.5 sq. in.; brake factor, 35. Road clearance, 7½ in., insufficient for rough country driving. Seat widths, 56 in. front, 51 in. rear. Chrome plating comparatively poor. There have been complaints of clogged oil lines to rocker arms in cylinder heads. As 1948 models differ only slightly from 1947, a relatively high depreciation loss (decline in "book value") can be expected eventually on the 1948 car. Fenders medium thin for such a large car. 19-gal. gas tank. Reported performance, 17 to 19 m.p.g. on country trips, 14 to 16 in city driving. Bumpers are adequate with good wrap-around at fenders. Weight, 3865 lb. (price per lb., 45c).

B+

Ford V8, 1949, Custom. $1475 f.o.b.; $1725 delivered N.Y.C. Engine: 8 cylinder, V type, 3-3/16 in. bore x 3¾ in. stroke; 239.4 cu. in. displacement; 100 hp. at 3800 rpm.; taxable hp., 32.5; compression ratio, 6.8 to 1. 4-ring pistons (desirable). Engine oil capacity, 5 qt.; cooling water, 22 qt. Except for engine, this car is the same as the *Ford 6 Custom*. Dealers claim about 20 m.p.g. Weight, 3155 lb. (price per lb., 54.5c).

Pontiac Streamliner 8. $1654 f.o.b.; $1727 delivered N.Y.C. Except for engine which is the same as that in *Pontiac Torpedo 8*, this car is a de luxe model of the *Streamliner 6*. Very similar to *Buick 40* which costs only slightly more. Weight, 3685 lb. (price per lb., 47c).

Nash Ambassador. $1779 f.o.b.; $1851 delivered N.Y.C. Engine: 6 cylinder, valve-in-head, 3⅜ in. bore x 4⅜ in. stroke; 234 cu. in. displacement; 112 hp. at 3400 rpm.; taxable hp., 27.34; compression ratio, 7.0 to 1. Engine oil capacity, 6 qt.; cooling water, 17 qt. Battery, 15-plate 105-amp.-hr. (adequate), located under front seat. *Sizaire* type independent front wheel suspension. Wheelbase, 121 in.; over-all length, 208½ in.; road clearance, 8 in. approximately. Tire size, 7.10 x 15, low pressure (overloaded). Braking area, 176 sq. in.; brake factor, 40.6. 20-gal. gas tank. Reported by owners to give 17 to 19 m.p.g. in country driving, 22 m.p.g. with overdrive, which is available as an extra at $90. Seat widths, 57⅝ in. front, 50 in. rear. Has strong unitized welded body-frame construction; body construction among the strongest and safest used on today's cars. A double-width Pullman lower-berth style bed is available as an extra. Weight, 3590 lb. (price per lb., 51.6c).

Price Group 4

A–

Buick, Series 50. $1929 f.o.b.; $2006 delivered N.Y.C. Same engine as *Series 40*, but higher compression ratio gives 5 additional rated hp. Uses 7.60 x 15 tires (overloaded). Except for wheelbase of 124 in. (over-all length 212.5 in.), slightly wider body and more luxury, this car is practically the same as the *Series 40*. Weight, 4015 lb. (price per lb., 50c).

Chrysler Saratoga. $1973 f.o.b.; $2200 delivered N.Y.C. Engine: 8 cylinders in line, L head, 3¼ in. bore x 4⅞ in. stroke; 323.5 cu. in. displacement; 135 hp. at 3400 rpm.; taxable hp., 33.8; compression ratio, 6.7 to 1. Engine oil capacity, 6 qt.; cooling water, 26 qt. Battery, 19-plate 135-amp.-hr. (judged ample). *Sizaire* type independent front wheel suspension with sway bars front and rear. Wheelbase, 127.5 in.; over-all length, 216¾ in.; road clearance, about 8 in. Tire size, 8.20 x 15 (adequate). Braking area, 189.2 sq. in.; brake factor, 39. Performance reported by owners, 17 m.p.g. for country driving, 13 to 15 m.p.g. in city traffic. 20-gal. gas tank. Other details same as for *Chrysler Royal*. Weight, 4165 lb. (price per lb., 53c).

B

Mercury, 1949. $1875 f.o.b.; $2146 delivered N.Y.C. Engine: 8 cylinder, V type, 3-3/16 in. bore x 4 in. stroke; 255 cu. in. displacement; 110 hp. at 3600 rpm.; taxable hp., 32.5; compression ratio, 6.8 to 1. New ignition unit is accessible but uses single breaker and considered likely to need more frequent attention than former type. Engine oil capacity, 5 qt.; cooling water, 22 qt. Gear ratio, 3.9 to 1; with optional overdrive, 4.27/3.29 to 1. Automatic choke. *Sizaire* type independent wheel suspension, with sway bar. Wheelbase, 118 in.; over-all length, 206.7 in. Road clearance, 7¾ in. Tire size, 7.10 x 15 (overloaded). Brake area, 179 sq. in.; brake factor, 41. Seat widths, front 57 in., rear 61 in. 19½-gal. gas tank. Formerly this car has been essentially the same as the *Ford V8* except for longer wheelbase and hood; now, assembled and merchandised by the Lincoln-Mercury division, it has been substantially changed to compete in a higher price group. Weight, 3600 lb. (price per lb., 60c).

Price Group 5

A

Buick, Series 70. $2232 f.o.b.; $2317 delivered N.Y.C. *Dynaflow* drive available as an optional extra at $244. Engine: 8-cylinder valve-in-head; 3-7/16 in. bore x 4-5/16 in. stroke; 320 cu. in. displacement; 144 hp. at 3600 rpm.; taxable hp., 37.81; compression ratio, 6.6 to 1 (same engine available as optional equipment with higher compression ratio for cars with *Dynaflow* transmission, giving 150 hp. at 3600 rpm.). Engine oil capacity, 7 qt.; cooling water, 16¾ qt. Gear ratio, 4.1 to 1 (with *Dynaflow* 3.9 to 1); 3.6 to 1 optional on both. Battery, 120-amp.-hr. *Sizaire* type independent wheel suspension. Wheelbase, 129 in.; over-all length, 217⅛ in. Tire size, 8.20 x 15 (22 lb. per sq. in. pressure, overloaded). Brake area, 207⅛ sq. in.; brake factor, 41. Road clearance, 7½ in., insufficient for rough country driving. Seat widths, front 58 in., rear 52 in., rear headroom 34¾ in., definitely low for tall passengers. Reported performance 12 to 14 m.p.g. average, about 9 to 11 with *Dynaflow*. Weight, 4330 lb. (price per lb., 53c). Tentative rating with *Dynaflow* automatic transmission, *B+*.

Cadillac 61. $2647 f.o.b.; $2724 delivered N.Y.C. *Hydra-matic* transmission, $180 extra. Engine: 8 cylinder V type, L head, 3½ in. bore x 4½ in. stroke; 346 cu. in. displacement; 150 hp. at 3400 rpm.; taxable hp., 39.2; equipped with hydraulic valve lifters, which have given some trouble in service; compression ratio, 7.25 to 1 (somewhat high for long life with uniform performance). Engine oil capacity, 7 qt.; cooling water, 25 qt. Gear ratio, 3.77 to 1; with *Hydramatic*, 3.36 to 1. Battery, 17-plate, 115-amp.-hr. (somewhat small for this large car). *Sizaire* type independent front wheel suspension. Wheelbase, 126 in.; over-all length, 214 in.; road clearance, 7½ in. approximately. Tire size, 8.20 x 15 low pressure (overloaded if 4 ply, adequate if 6 ply). Braking area, 208 sq. in.; brake factor, 39. Owners report gasoline mileage of 13 to 15 (9 to 11 in city driving). Seat widths: front, 60 in.; rear, 52 in.; headroom, 36½ in.; 25-gal. tank. A heavy powerful car offering luxurious transportation. Depreciation as with other expensive cars is very high (30% to 40% the first year, if turned in on a new model of same make). Weight, 4620 lb. (price per lb., 57.3c). Would be rated *B* with *Hydra-matic*.

Packard Super Eight. $2827 f.o.b.; $2906 delivered N.Y.C. Engine: very similar to that of *Packard Eight* except for slightly longer stroke and 327 cu. in. displacement giving 145 hp. at 3600 rpm. Tires, 7.00 x 15 (overloaded). Brake area, 171½ sq. in.; brake factor, 36. For other details, see *Packard Eight*. Weight, 4035 lb. (price per lb., 72c).

A–

Cadillac 75. $4471 f.o.b.; $4560 delivered N.Y.C. Engine same as *Cadillac 61*. Wheelbase, 136 in.; over-all length, 226 in.; road clearance, 7½ in. Tires, 7.50 x 16 six ply (adequate). Expected gasoline mileage, about 12 to 14 (8 to 10 in city driving). Depreciation in market value will be very high, as with very large cars of any make. The car should be relatively very safe against crash damage. Braking area, 233 sq. in.; brake factor, 39. Weight, 5215 lb. (price per lb., 86.4c—very high). For other details, see *Cadillac 61*.

B+

Packard Eight. $2275 f.o.b.; $2354 delivered N.Y.C. (Extra accessories with which most cars are equipped in today's market usually amount to about $500 additional.) 8 cylinders in line, L head, 3½ in. bore x 3¾ in. stroke; 288 cu. in. displacement; 130 hp. at 3600 rpm.; taxable hp., 39.2; compression ratio, 7 to 1, judged high for a 3-piston-ring design. Engine oil capacity, 6 qt. (rather small); cooling water, 18 qt. Gear ratio, 3.9 to 1 (overdrive available at extra cost, claimed to reduce engine revolutions per mile by 27.8%). Battery, 15-plate 100-amp.-hr. (judged too small). *Sizaire* type independent front wheel suspension with sway bar.

CORRECTIONS TO CONSUMERS' RESEARCH BULLETIN OF

AUGUST 1948

Toilet Soaps
p. 16-17

Amplification Note: Packer's Tar Soap was rated C. Not Recommended in CR's report on 20 brands that appeared in Consumers' Research Bulletin, August 1948, pages 16-17. The soap failed to meet Federal Specifications for Milled Toilet Soap, P-S-62la, in that it contained rosin. Phenolic compounds were also present. The manufacturer has asked us to point out that the resinous and phenolic compounds found in the analysis made for CR to be present in the soap are only those which are natural constituents of the Pine Tar used (which is asserted to be of U.S. Pharmacopoeia grade).

Wheelbase, 120 in.; over-all length, 205 in. Tire size, 6.50 x 16 (overloaded). Road clearance, 8 in. Seat widths, front 56¼ in., rear 50½ in.; these are pre-war widths, but design gives car a wide appearance. Sidewall design provides an element of safety against side crashes formerly provided by running board, unfortunately lacking in some post-war models of the wide-seat type. 17-gal. gas tank (small for the size of the engine). Reported performance, 14 m.p.g. in city driving, 16 to 18 m.p.g. in country driving (with overdrive, around 20 m.p.g.). Weight, 3975 lb. (price per lb., 59c).

Cars, Substandard as to Size, Tread, Wheelbase, etc.

A–

Willys Four Jeep Station Wagon. $1739 f.o.b.; $1825 delivered N.Y.C. Engine: 4 cylinder, L head, 3⅛ in. bore x 4⅜ in. stroke; 134 cu. in. displacement; 63 hp. at 4000 rpm.; compression ratio, 6.5 to 1 (7.0 to 1 optional). Engine oil capacity, 4 qt.; cooling water, 11 qt. Gear ratio, 4.88 to 1 (5.38/3.77 with overdrive). Battery, 15-plate 100-amp.-hr. (adequate). *Delage*-type independent front wheel suspension. Wheelbase, 104 in.; over-all length, 174 in.; road clearance, 8¼ in. Tire size, 6.00 x 15 (overloaded with 6 passengers). 6.50 x 15 tires optional (adequate). Braking area, 133 sq. in.; brake factor, 36. 15-gal. gas tank. Reported by owners to give 24 to 26 m.p.g. Seat widths, 54 in. front, 53 in. rear; carries 6 passengers; a seat for a seventh passenger facing sideways (all seats except driver's are removable) is available as an extra. Seat upholstery of artificial leather. Body of all-steel construction of good strength and less subject to early deterioration than usual wood station wagon bodies. Somewhat hard riding, but judged a good utility car. Weight, 2925 lb. (price per lb., 62c).

B+

Willys Six Station Wagon. $1992 f.o.b.; $2075 delivered N.Y.C. Engine: 6 cylinder, L head, 3 in. bore x 3½ in. stroke; 148 cu. in. displacement; 72 hp. at 4000 rpm. Compression ratio, 6.42 to 1. Except for the larger engine, and the upholstery (which is of the same kind used in conventional automobiles), this is essentially the same as *Willys Four* station wagon. Weight, 2930 lb. (price per lb., 71c, high).

B

Austin Devon, an imported British car. $1660 delivered N.Y.C. Engine: 4 cylinder, valve-in-head, 2.575 in. bore x 3.5 in. stroke; 73.2 cu. in. displacement; 40 hp. at 4300 rpm. (hp. low and speed high when compared to American practice); compression ratio, 7.2 to 1. Engine oil capacity, approximately 5 qt.; cooling water, 7.5 qt., with overflow tank built into radiator. Gear ratio, 5.43 to 1. Battery, 12-volt, 51-amp.-hr., non-standard. Individual front wheel suspension, semi-elliptical leaf springs at rear. Transmission has 4 forward speeds, 1 reverse, an arrangement which is not a conventional American gearshift system (necessary with an engine of relatively small power). Wheelbase, 92.5 in.; over-all length, 153 in.; road clearance, 6¾ in., too low for rural roads. Tire size, 5.25 x 16 (adequate). Brakes hydraulic on front wheels, mechanical on rear. Sliding roof section over driver's seat provides ventilation without draft. Built-in jacks operated from inside of car to lift either right or left side of car. Trunk door hinged at bottom; provides platform for carrying additional luggage. Genuine pigskin leather upholstery. Bumpers of unconventional height and not suitable for American highway use, but special bumpers of normal height are said to be available, also additional bumper guards, which should be of real value. Reported by dealers to give 33 to 35 m.p.g. in city driving, 40 to 42 in country driving. A well-made 4-passenger car with front seat 42 in. wide, rear 39 in. Except for headroom, 34½ in., which is somewhat low for tall persons, it has ample space and leg room for 4 passengers and should provide good transportation for a small family or elderly people whose mileage needs are not very great. Weight, 2315 lb. (price per lb., 72c—high).

B–

Ford Prefect, an imported British-made car. $1640 delivered N.Y.C. Engine: 4 cylinder, L head, 2½ in. bore x 3.64 in. stroke; 71.6 cu. in. displacement; 30 hp. approximately at 4000 rpm.; compression ratio, 6.16 to 1. Engine oil capacity, 2½ qt.; cooling water, 7.5 qt. Gear ratio, 5.5 to 1. Battery, 6-volt, 15-plate, 63-amp.-hr. (believed adequate for this small car). Transverse springs front and rear. Wheelbase, 94 in.; over-all length, 155½ in.; road clearance, 7 in., insufficient for rough country driving. Tire size, 5.00 x 15 (adequate). Brakes, mechanical, cable type. Genuine leather upholstery. Reported (by dealers) to give 33 to 35 miles per U.S. gal. (presumably in country driving). The *Prefect* is a 4-passenger car with front seat 42 in. in width, rear seat 40 in., headroom, 34.5 in. (too low for tall persons). Very similar to the former *Model A Ford*, but scaled down in size, and thus not a fully modern car by American standards; in Britain, competitive with the British *Austin*, but not its equal. Weight, 1830 lb. (price per lb., 90c — very high).

C+

Crosley. $1020 delivered N.Y.C. Engine: 4 cylinder, valve-in-head, 2½ in. bore x 2¼ in. stroke; 44 cu. in. displacement; 26.5 hp. at 5400 rpm.; taxable hp., 10; compression ratio, 7.5 to 1. 3-ring piston not well suited to thin cylinder wall construction of engine; later cars are reported to have 4 rings per piston. Engine oil capacity, 2 qt.; cooling water, 5 qt. Gear ratio, 5.17 to 1. Battery, 70-amp.-hr. Wheelbase, 80 in.; over-all length, 145 in. Tire size, 4.50 x 12 (adequate). Braking area, 65 sq. in.; brake factor, 41. Road clearance only 6½ in. 6½-gal. gas tank. Reported by dealers to give 30 to 35 m.p.g. in city, and up to 40 in country driving. Engine noisy (made one think of an outboard motor), did not idle smoothly. Body light and "tinny." This small "substandard" car is considered likely to show a very low resale value. Strictly a 4-passenger car; is not considered fully safe (from size standpoint) for general highway use where there is the possibility of an accident. This car would rate *B* for uses where special road hazards, due to its small size and low build, would not be a factor. Weight, 1150 lb. (price per lb., 89c).

Mayonnaise

MAYONNAISE, French dressing, and boiled dressing are the three basic salad dressings, and of these mayonnaise is the most difficult for the housewife to make. Homemakers who do make their own mayonnaise often consider it a culinary feat worthy of some approbation, for not only must the temperatures of the ingredients be nearly the same, but the oil must be added carefully and the beating must be not too slow nor too rapid, if a successful emulsion is to be obtained. Even with care, de-emulsification is likely to occur, and then the housewife must start all over again with another egg yolk to which she must add a small amount of previously made mayonnaise before gradually adding the curdled dressing.

The homemade product is often superior to the commercial product, especially for those who prefer a rich rather than a bland flavor, but nevertheless many evidently prefer the convenience of a commercial ready-made mayonnaise. Some housewives like to add flavoring ingredients to both the homemade and commercial products when preparing different kinds of salads.

According to federal definition, mayonnaise is: The semi-solid emulsion of edible vegetable oil, egg yolk or whole egg, a vinegar, and/or lemon juice, with one or more of the following—salt or other seasoning commonly used in its preparation, sugar and/or dextrose. The finished product should contain not less than 50 percent of edible vegetable oil. As this is written, all products sold as mayonnaise, mayonnaise dressing, or mayonnaise salad dressing must conform to this definition, but the label need not declare the individual ingredients.

The federal government, however, has just concluded hearings at which testimony was presented showing that it would be desirable to change these standards to require manufacturers to indicate on the label just what particular vegetable oil has been used in their product. Such labeling would be of great value to those who are allergic to certain oils. Allergists have testified that about one person in every 165 of the population of the United States has an allergic reaction to cottonseed products, and cottonseed oil is very commonly used in mayonnaise manufacture.

Cottonseed oil produces an emulsion that keeps well during hot weather and is especially likely to be used in mayonnaise sold during summer months. Corn oil, on the other hand, produces an emulsion which has good resistance to separation at low-temperatures and is likely to be used in mayonnaise sold during winter months. Peanut and soybean oils are also used in mayonnaises. Olive oil is seldom used in mayonnaises, because it is very expensive, as edible oils go, and also because the flavor is not popular with Americans who, according to trade practices, are assumed to prefer bland, light oils.

Mineral oil mayonnaise and salad dressing, favored by those who watch their calories closely, are adulterated products under a ruling of the Federal Food and Drug Administration because of the known harmfulness of mineral oil in the diet. Mineral oil interferes with body absorption of provitamin A, and vitamins A, D, and K, and it is now postively established that if taken regularly it may cause a vitamin deficiency. It also interferes with the utilization of calcium and phosphorus. Mineral oil dressings have also been reported as a cause of illness. The A.M.A. in disapproving mineral oil mayonnaises pointed out that even if the mineral oil were declared on the label, the consumer is not protected thereby, as he has no opportunity to read the labels when the mayonnaise is served him in restaurants and institutions.

Consumers who are particularly concerned about the kind of oil used in the commercial mayonnaise they eat will be interested in one of the arguments used against the proposed standard requiring identification of the vegetable oil. Some manufacturers, apparently unaware of the implications of their argument

from the consumer's standpoint, contended that it just wasn't possible for them to be certain of their labeling because the tank cars in which the oils were shipped might be used one time for one oil and the next time for another, and the second shipment might be contaminated with the residue of the first shipment.

The mayonnaises tested for Consumers' Research by a firm of competent consulting food chemists easily met the government requirements with respect to oil content. Some of the brands had a higher egg yolk content than others, but small significance was given to these findings since the ratios of ingredients are influenced by the kind of oil, condition of the egg, and presence of thickening materials. The highest percent of egg yolk found was a little less than 9 percent for *Home-de-Lite*, and the smallest percent found was about 3.5 percent for *Kraft*.

Since mayonnaises are not considered important sources of food, the ratings are based primarily on the results of organoleptic tests which evaluated the flavor and consistencies of the different mayonnaises tested. Ratings are cr48.

A. Recommended

Bennett's Prize Recipe (Recipe Foods Inc., Baltimore) 8 fl. oz., 23c. Essential ingredients of sample tested judged to be 6.6% egg yolk, 78% vegetable oil. Consistency, flowing. Flavor, good.

Durkee's (Durkee Famous Foods, Berkeley, Calif.) 16 fl. oz., 47c. Ingredients declared on label: salad oil, eggs, vinegar, sugar, salt, spices. Essential ingredients of sample tested judged to be 4.8% egg yolk, 79% vegetable oil. Consistency, good (some oil separation). Flavor, good.

Hellman's Blue Ribbon (The Best Foods, Inc., N.Y.C.) 8 fl. oz., 28c. Essential ingredients of sample tested judged to be 4.3% egg yolk, 78% vegetable oil. Consistency, stiff. Flavor, good.

Hom-de-Lite (Distributed by American Stores Co., Philadelphia) 8 fl. oz., 25c. Ingredients declared on label: salad oil (cottonseed and/or corn and/or soybean oils), vinegar, eggs, sugar, salt, and spices. Essential ingredients of sample tested judged to be 8.7% egg yolk, 76% vegetable oil. Consistency, free flowing. Flavor, good.

Kraft (Kraft Foods Co., Chicago) 8 fl. oz., 28c. Essential ingredients of sample tested judged to be 3.6% egg yolk, 78% vegetable oil. Consistency, good. Flavor, good.

B. Intermediate

Blue Plate (Blue Plate Foods Inc., New Orleans) 8 fl. oz., 28c. Essential ingredients of sample tested judged to be 5.8% egg yolk, 78% vegetable oil. Consistency, good. Flavor, fair (acid).

Bluhill (Bluhill Foods Inc., Denver) 8 fl. oz., 28c. Essential ingredients of sample tested judged to be 6.4% egg yolk, 77% vegetable oil. Consistency, flowing. Flavor, fair.

Foodcraft (Foodcraft Products Co., Los Angeles) 16 fl. oz., 45c. Ingredients declared on label: salad oil, eggs, sugar, vinegar, salt, and spices. Essential ingredients of sample tested judged to be 5.9% egg yolk, 78% vegetable oil. Consistency, good. Flavor, fair.

Nu-Made (Table Products Co., San Francisco) 8 fl. oz., 26c. Essential ingredients of sample tested judged to be 8.0% egg yolk, 77% vegetable oil. Consistency, good. Flavor, fair.

Vogeler's (Vogeler Bros., Newark, N. J.) 16 fl. oz., 51c. Ingredients declared on label: eggs, egg yolk, salad oil, vinegar, and spices. Essential ingredients of sample tested judged to be 5.8% egg yolk, 77% vegetable oil. Consistency, good. Flavor, fair.

C. Not Recommended

Ann Page (Distributed by The Great Atlantic & Pacific Tea Co., N.Y.C.) 8 fl. oz., 24c. Ingredients declared on label: salad oil (cottonseed and/or corn oil), eggs, vinegar, spices, dextrose, and salt. Essential ingredients of sample tested judged to be 7% egg yolk, 82% vegetable oil. Consistency, good (slight oil separation). Flavor, poor (sharply acid).

Lady Betty (Wheatley Mayonnaise Co., Inc., Louisville) 8 fl. oz., 27c. Essential ingredients of sample tested judged to be 7% egg yolk, 79% vegetable oil. Consistency, good. Flavor, poor.

Lady's Choice (Lady's Choice Foods, San Francisco) 16 fl. oz., 43c. Essential ingredients of sample tested judged to be 7.6% egg yolk, 80% vegetable oil. Consistency, flowing (some oil separation). Flavor, poor (rancid).

Note to Subscribers Who Write to CR

We would again remind subscribers that whenever they wish answers to inquiries regarding products that have been tested, they should write their request in the form of a *letter*, and enclose a stamped, ready-addressed envelope for CR's use in replying. Many persons write their message on post cards, which provide no postage for an answer. When postage and envelope are sent us, we can often supply a suitable answer to a question by furnishing information in the form of a BULLETIN tear sheet, reprint, or similar item. Of course, those inquiries made by subscribers which do include postage for answer will be given precedence over those received on post cards, and when time and clerical staff available at a given time do not permit reply to all questions, post card inquiries may have to go unanswered.

Small Air-Conditioning Units

WINDOW SILL or console window-type air-conditioning units, properly proportioned and installed, have proven quite satisfactory for cooling, filtering, and dehumidifying the air in single rooms, such as offices, bedrooms, sickrooms, and studies.

Most models contain two motors, a ½ to 1½ horsepower motor to operate the mechanical cooling system and a much smaller motor to circulate the cooled air throughout the room. To reduce room noise to an absolute minimum, the larger motor and the refrigerating mechanism are usually located outside the window. While this is seldom objectionable in residences, it may not be permitted in some apartments and office buildings where rules for safety of passers-by, appearance, and window cleaning convenience are enforced; for use in such cases, some manufacturers can supply special models or mountings. A point to check is that a motor of the size involved can be installed in the particular location, from the standpoint of the wires available and the power company's regulations.

While some manufacturers advertise their window conditioners as being "portable," their weight is a minimum of nearly 200 lb., and they are besides located in an awkward position, half in and half out of the window; accordingly the claim need be given no weight.

Capacities

Capacities of all air-conditioning equipment depends upon so many complex factors such as climate, number of persons or heat-producing appliances in the room, exposure to sun and wind, and building design and construction, that calculations of capacity must be figured individually by someone with considerable experience, for any degree of exactness.

When questioned concerning the size of rooms that their equipment could condition, most manufacturers correctly replied that they could not estimate capacities without specific conditions in mind. Nearly all withhold estimates until their engineer has measured and judged the conditions of the contemplated installation; on the other hand a few, such as *Philco* and *York*, attempt to tie their models in with either specific or maximum room size. This, in spite of its convenience, is not believed to be a sufficiently accurate method, and a survey by a competent specialist is strongly recommended before selecting a size.

For purposes of comparison and for checking manufacturers' claims of capacity, it has been assumed that the removal of 5900 Btu (heat units) per hour would be required to lower the temperature 15°F for a shaded corner room 12 x 16 x 8 ft. with 32 sq. ft. of window area and two adult occupants. This is the equivalent of 200 sq. ft. of floor space per ½ ton of ice-making capacity.[1]

Editor's Note:

This is the first of several articles on air conditioning and ventilation which will appear in CR Bulletins. Later articles will cover the use of warm-air furnaces as air conditioners, attic fans, and window-type exhaust fans.

As most of the popular air conditioners are similar in function, it may be assumed unless otherwise noted that the conditioners rated herein included compressor-type cooling units, throw-away air filters easily accessible to the householder, means for disposal of any condensed water without auxiliary drains, and controls for using either recirculated or outside air, or circulating outside air without cooling.

The Cost of Operating Air Conditioners

As many variables enter into the calculation of air-conditioning requirements, it is extraordinarily difficult to predict the seasonal cost of operation with any degree of certainty. Among factors that affect power consumption are: degree of exposure of the space being cooled to the sun and wind; correctness of the proportioning of the unit to the size of the space; construction of the house with particular relation to the heat flow in and out; the needs or tastes of the occupants as to the reduction in temperature which they consider suitable or necessary. It is believed that the variations between successive seasons and due to individual differences and home conditions would often be very much greater than would occur with the problem of estimating the amount of fuel required for heating the house during the cold season.

The best guide to the cost of operation is the hourly cost of the units while running. With his individual conditions in mind, the average consumer can perhaps make a reasonably effective estimate of the number of hours during which he would expect

[1]A ton of ice-making capacity is the unit for measuring refrigeration capacity in terms of Btu of heat removed per hour. One ton of refrigeration or ice-making capacity requires the removal of 12,000 Btu of heat per hour. (The term in this usage has, of course, no direct or practical relationship to ice or ice production.)

to have the cooling unit running. This, multiplied by the hourly operating cost, would give the estimated seasonal operating expense. The table on this page shows the approximate hourly cost of electricity for air conditioning units having various usual sizes of motors, at different rates for electricity.

To give a very rough idea of the number of hours during which air conditioner operation might be required, it may be said that the estimated hours during June and September run from as little as 17 and 22 in San Francisco and Denver, respectively; 380 and 480 in St. Paul, Minn., and La Crosse, Wis., respectively; 590 in Hartford, Conn.; 850 in Memphis; to 930 in Charleston, S. C. These figures, however, it must be repeated, should be used with the utmost caution, and it is believed that in particular cases the number of hours of operation required or wanted by a given individual may run to several times as many as are shown. The wise consumer will, therefore, be sure, before investing in air-conditioning equipment, to make his estimate on the safe side, if cost of operation is important to him from an economic standpoint.

Approximate Hourly Cost of Operation

Size of Motor	Kilowatts per hr.	Cost of operation in cents per hour with various rates for electricity					
		1c	2c	3c	4c	5c	6c
½	¾	¾	1½	2¼	3	3¾	4½
¾	1¼	1¼	2½	3¾	5	6¼	7½
1	1½	1½	3	4½	6	7½	9

Additional Types

In localities where low temperature water (below 55°) is available in abundant quantities at reasonable cost, manufacturers may offer water-flow cooling coils instead of mechanical refrigeration.

Types of coolers are also available in which the air for circulation through the cooled space passes directly over ice or through a water screen. As such direct evaporation types add to the humidity instead of dehumidifying, their application is strictly limited to those areas of the Pacific and Mountain States where humidification even in the summer—rather than dehumidification—is needed.

Luminaire (Luminaire Distributing Corp., Columbian Bldg., Washington 1, D.C.) offers a unique type of unit at $450 f.o.b. factory which in appearance resembles a floor lamp of the indirect-illumination type. The refrigerant condenser is water cooled, requiring *water and drain connections*; it uses a ½ hp. motor for compressor, 1/50 hp. motor for fan, and is claimed to have a cooling capacity of 7500 Btu per hour. No tests have yet been made by CR of this unit.

Window Sill Air Conditioners

A. Recommended

Carrier (Carrier Corp., Carrier Bldg., Syracuse 1) ½ ton, ½ horsepower motor, 5400 Btu per hour, $398 installed; ¾ ton, ¾ hp., 9000 Btu, $498 installed. Size of ½ hp. model, 26½ in. long, 13 in. high, 25½ in. deep. Well designed. Appearance with bowed grille, attractive and unobtrusive; projects only 11 in. into room.

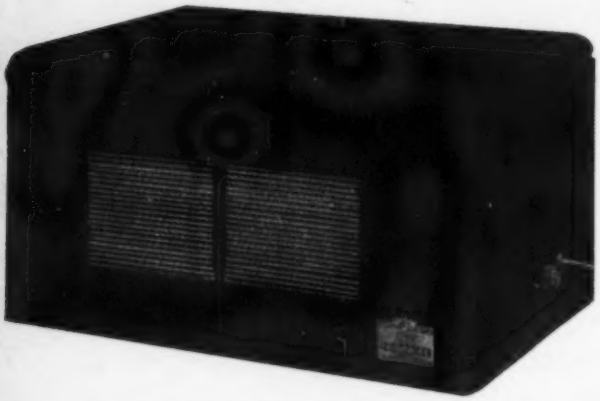
Chrysler Airtemp (Airtemp Division, Chrysler Corp., 341 Mass., Detroit) ¾ hp., ¾ ton, 9000 Btu. Price expected to be slightly under $500. 29 in. wide, 14¾ in. high, 32½ in. deep (16¼ in. inside window). Weight, 197 lb.

Frigidaire (Frigidaire Division, General Motors, Dayton, Ohio) ½ ton, ½ hp., $389.75 f.o.b. Dayton. 670-watt input; slightly lower than some models examined. 26 in. wide, 13½ in. high, 29½ in. deep of which 15¼ in. projects into room. Weight, 185 lb. There are also ¾ hp. and 1 hp. models. Bonderized steel cabinets with bronze finish. Five year warranty. Powered by sealed *Frigidaire "Meter-Miser"* motor-compressor as used on refrigerators.

Carrier

Monitor (S. S. Fretz Jr. & Co., Inc., 1902 Chestnut St., Philadelphia 3) ½ hp., 5500 Btu, $394.50 installed.

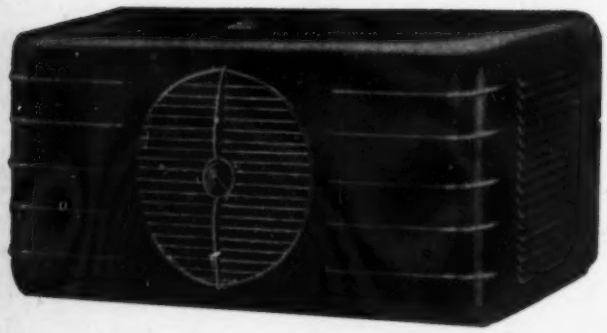
25 in. wide, 13 in. high, 26 in. deep, with 12 in. inside window. 800 watts input. Shipping weight, approximately 200 lb. Modern effective soundproofing results in exceptionally quiet operation. Metal cabinet finished in dark brown.



Frigidaire

B. Intermediate

Yorkaire Room Conditioner, Model 2 (York Corp., York, Pa.) ¾ hp., 7700 Btu, $464.50 installed with one year's service. Rating by manufacturer as being suitable for a 20 x 20 ft. room considered high; on the basis described in the preceding text, CR would class this Btu capacity as being adequate for a maximum of about 20 x 13 ft. of floor space. On other counts, *Yorkaire* would be rated *A. Recommended* as it is well engineered and constructed.



Monitor

Philco, Model 76-D (Made by York Corp. for Philco distribution) ¾ hp., 7400 Btu, $481.50 installed. Ivory or brown finish. 14½ in. high, 26 in. wide, 19¼ in. deep. Same comment regarding manufacturer's rating applies as for *Yorkaire;* in addition it would be well to have an agreement as to the amount and type of service that would be available.

Console Window Models

The next type of air conditioner to be considered is the console window model, usually of ¾, 1, or 1½ hp. rating. These are almost identical with

Philco

the window sill models except that they have a base that stands on the floor instead of resting on the sill. As the warm air is discharged through the window, they must occupy space under a window.

A. Recommended

Carrier (Carrier Corp.) ¾ hp., ¾ ton, $629 installed; 1½ hp., 1½ ton, 13,000 Btu capacity, $885 installed. ¾ hp. model is 34 in. wide, 17½ in. deep, and 40¼ in. high.

Remington, Model 10 Deluxe (Remington Air Conditioning Division, Remington Corp., Cortland, N. Y.) 1 hp., 1 ton, 11,000 Btu, $800. 7000 Btu heating unit can be included at extra cost if desired. Ventilating capacity, 4500 cu. ft. per hour. Materials and workmanship guaranteed for 15 months after shipment by the fac-

Carrier

tory. (In all such factory guarantees it is well to determine how much of the guarantee remains *as of the date of purchase by the consumer.*)

B. Intermediate

Yorkaire (York Corp.) ¾ hp., 8750 Btu. Manufacturer rates as being suitable for room 20 x 25 ft. as against CR's estimated maximum of 20 x 15 ft. as based on manufacturer's stated Btu. 39⅜ in. high, 32½ in. wide, 19-5/16 in. deep.

Remington

Philco, Model 91-C (Made by York Corp.) This model has the same motor (¾ hp.) as used by the same manufacturer in the *Yorkaire* console. The manufacturer's claim of being able to condition 500 sq. ft. of floor space with this unit is considered out of line, as CR calculates only about 300 sq. ft. for 9000 Btu.

Packaged Air Conditioners

For larger spaces or for more than one room or floor, it is feasible to install several conditioners of the foregoing types. However, the 1½ hp. 13,000 Btu models described as suitable for a maximum of 475 sq. ft. of floor space (with 8 ft. ceiling) are the largest available and suitable for above-basement, residential use.

While larger "packaged air conditioners" are offered by several manufacturers, including *Chrysler Airtemp*, with motors up to 5 hp., their principal application is commercial rather than domestic. Primarily designed for air conditioning one large space, they are some 8 ft. high and require connections to water supply and a drain line.

Beyond the limits of 1½ hp. motor and about 475 sq. ft. of floor space, residential air conditioning definitely becomes a job for a central system with the equipment located in the cellar; the design of such a system is such that it should be attempted only by a qualified air-conditioning expert.

NOTE: *Illustrations in this article do not necessarily reflect relative sizes of the appliances.*

★ ★ Corrections and Emendations to Consumers' Research Bulletins ★ ★

Television
Page 25
Feb. '48

The information given in our BULLETIN item on television statistics was somewhat incorrect at the time it was printed, because of the rapid increase of production in this industry. It was estimated at the time this was written that there were about 300,000 television sets in use in the U.S., and about one million sets were expected to be in use by the end of the year (the total production in February alone was approximately 36,000). As of April 30, there were approximately 21 television transmitting stations in operation in 12 cities, 70 construction permits granted, and 205 applications pending. Forty-two cities in 28 states affecting about one-half of the population of the country are expected to be served by the end of 1948; some 60 stations are expected to be in operation by that time.

Consumers' Observation Post
Vitamin D
Page 3
April '48

In some copies of the April 1948 BULLETIN, a phrase in the fifth line of this item reads: ". . . from taking vitamin S." As is clear from the context, the phrase should read ". . .from taking vitamin D"; the mistake was an error of the printer after a part of the BULLETINS had been run.

Margy Maid Mixer
Page 30

A similar error occurred in line 2 of the concluding item on page 30, where "box" was printed as "boy."

Toilet Soaps—CR's Report on 20 Brands

It is rather generally accepted at the present time that the best cleanser for the skin is a good quality toilet soap used with warm, preferably soft, water. Although there is disagreement as to whether hard water actually has any irritating effect on the skin, it is well known that a soap has better lathering properties in soft water. In the opinion of one noted dermatologist, the effectiveness of soap comes from its suds-forming action, by which the dirt is put into physical condition to be picked up for ready removal by the water used to rinse it off. Scientists have offered various explanations of the dermatological action of soap, but it appears that one of its most important effects on the skin is to emulsify the natural oils.

Whether this emulsification is most effectively accomplished by abundant lather or whether the association of soap suds with cleanliness is so ingrained that the washing process is psychologically unsatisfactory without the lather is not clear at the present time. The National Bureau of Standards defines a good toilet soap as one which is neutral, neither acid nor alkaline, and which lathers freely. The best results as to lathering are secured, according to the Bureau of Standards, when coconut oil has been a substantial part of the fat content.

There is an objection, however, to use of coconut oil in toilet soap, in that it is found to be irritating to sensitive skins. This irritation may be due to an allergy to coconut oil or it may be due to its excessive detergent action in removing the natural oils from the skin. The latter position is given some support by the fact that skin irritation from soap is more common in winter months than in summer, particularly with persons who live in overheated city apartments. Other ingredients in soap that may play a part in causing skin troubles are cottonseed oil, palm oil, perfumes, coloring materials, preservatives, phenol (carbolic acid) or cresol, and rosin. As CR has pointed out from time to time, phenol or cresol added to soap to give an odor that some people associate with cleanliness is a skin irritant and adds no medicinal or health value to soap. The Journal of the American Medical Association has noted that *Lifebuoy* soap, which has been found to contain phenolic compounds, has not infrequently been a cause of dermatitis.

Various attempts have been made to counteract the irritating effect of soap on the skin. Superfatted soaps, for example, are made with an excess of oil or fat over the amount needed to neutralize the alkali in the soap formula. Sometimes these soaps are called lanolin soaps or "cold cream" soaps. In a test of 57 young women using a superfatted soap and a control soap, it was found that more discomfort was experienced with the control than with the superfatted soap. On the other hand, it has been pointed out that it is difficult to perform the cleansing and lubricating of the skin satisfactorily in the same operation and there is little if any of the superfatting material left on the skin after the washing is completed.

At one time castile soap was considered particularly satisfactory for use by people with sensitive skins. Originally it was made with pure olive oil, and no other fat, and soda. As competition in the soap trade became keen, however, there was a general tendency to cheapen the original product by using low-priced oils, and gradually the term "castile" ceased to have any particular meaning among soap manufacturers and dealers. This loss of identity was made official when in 1932 a federal court, acting on advice of government departments, the U. S. Bureau of Standards among others, ruled that a product labeled or sold as "castile" soap may contain oils or fats other than olive oil.

The consumer with soap troubles who wants some general rule to follow in making his purchases may well be guided by the comment of Dr. Joseph V. Klauder of Philadelphia and his associates that "it is the consensus that shaving soaps exert a milder action on the skin than toilet soaps."

The accepted standard for evaluating the quality of toilet soaps is the Federal Specifications for Milled Toilet Soap, P-S-621a, which defines the product as "a high grade, milled cake soap, as free as possible from water, either colored or uncolored, and mildly perfumed unless otherwise specified, thoroughly saponified, well compressed in firm, smooth cakes . . . . It should lather freely when used with cold, soft water." Twenty brands of soap, including two well-known shaving tablets, were tested for conformance with this specification. All except one brand were found

to comply with the government's requirements, or came close to doing so. The present tests of soap indicate that quality has improved considerably since CR's previous report in 1944. At that time 10 brands contained rosin—an adulteration sanctioned by federal specifications at that time because of wartime fat shortages. In the current test, only one brand was found to contain rosin, which is not permitted under present federal specifications for milled toilet soap. In view of the irritating properties of coconut oil, no soap which contained coconut oil in excess of 25 percent of the total oil or fat content has been given an *A-Recommended* rating.

In CR's test of the various brands, determination was also made of their free fatty acid content. It is considered that for a toilet soap, the permissible limit for free fatty acid should be around 0.2 percent, although one competent chemist holds that as much as 0.5 percent would not be likely to be a serious disadvantage. Navy specifications for olive-oil soda soap (castile) limit fatty acid content to 0.1 percent. The U. S. Pharmacopoeia sets a limit of 0.23 percent for "hard soap" (*Sapo Durus*). Where soaps in this test had a fatty acid content of more than the Pharmacopoeia's 0.23 percent, that fact has been indicated in the listings; no soap has been given a lower rating on that account, however, because the importance of excess free acid from the consumer's standpoint is not clearly established at this time.

The economy of a particular brand is determined by comparing the prices of the various soaps on a "water-free basis." Thus the figure that appears in parentheses following the actual price paid per cake represents the price per pound of dry soap. Ratings are cr48.

A. Recommended

Palmolive (Colgate-Palmolive-Peet Co., Jersey City, N.J.) 17c per cake (57c). **1**

Basis Soap Superfatted (Duke Laboratories, Inc., Stamford, Conn.) 35c per cake ($1.68). **2**

Conti Pure Castile Soap, U.S.P. (Conti Products Corp., 43 Clinton Ave., Brooklyn, N. Y.) 25c per cake ($1.15). **2**

Williams Mug Shaving Soap (The J. B. Williams Co., Glastonbury, Conn.) 10c per cake (97c). Free fatty acid content above generally accepted limits for toilet soap. **2**

• • •

Although the following brands met the requirements of the Federal Specifications for Milled Toilet Soap (P-S-621a), they all contained coconut oil in amounts varying from 10 to 25 percent (approximately) of their total fat or oil content. People with sensitive skins may find these brands not quite so satisfactory as those immediately preceding the asterisks.

Camay (Procter & Gamble, Cincinnati) 11c per cake (54c). **1**

Cashmere Bouquet Toilet Soap (Colgate-Palmolive-Peet Co.) 13c per cake (61c). **1**

Hershey's Cocoa Butter Soap (Hershey Estates, Hershey, Pa.) 10c per cake (52c). Free fatty acid content above generally accepted limits. **1**

Ivory (Procter & Gamble) 8c per cake (42c). **1**

Lux Toilet Soap (Lever Bros. Co., Cambridge, Mass.) 11c per cake (55c). **1**

Sweetheart Skin Charm Toilet Soap (Manhattan Soap Co., 441 Lexington Ave., N.Y.C.) 10c per cake (51c). **1**

Woodbury Facial Soap (John H. Woodbury, Inc., Cincinnati) 13c per cake (60c). **1**

Avaderma Dry-Skin Soap, Treated with Lanolin (Lightfoot Co., 663 Fifth Ave., N.Y.C.) 25c per cake ($1.32). Label carried declaration: "Avaderma Soap is treated with milk solids and lanolin for extra mildness." Lanolin, as indicated in the preceding text, may be helpful in mitigating the drying effect of soap, but milk solids are to be considered a "cosmetic" addition. One cosmetic trade journal admits that it cannot see how milk serves any purpose in soap. Casein, however, which is a milk derivative, is sometimes used to improve texture and lathering properties, according to a standard reference on industrial chemistry. **2**

Colgate Cup Soap for Shaving (Colgate-Palmolive-Peet Co.) 10c per cake (99c). Free fatty acid content above generally accepted limits for toilet soap. **2**

Yardley Old English Lavender Soap (Yardley, 620 Fifth Ave., N.Y.C.) 40c per cake ($2.32). **3**

B. Intermediate

The following brands contained coconut oil in excess of 25% with the exception of *Resinol.*

Bridal Bouquet (J. Eavenson & Sons, Division of Wilson & Co., Camden, N. J.) 9c per cake (47c). Second highest in coconut oil content of all brands tested. **1**

Lifebuoy Health (Lever Bros. Co.) 10c per cake (46c). Contained phenolic compounds, which CR considers to be undesirable in cosmetics and toilet articles. **1**

Swan Pure White Floating Soap (Lever Bros. Co.) 19c per cake (43c). **1**

The Physicians and Surgeons Soap (The Physicians Supply Co., Cincinnati) 15c per cake ($1.03). Had the highest coconut oil content of all brands tested. Free fatty acid content much above accepted limits. **2**

Resinol Toilet and Bath Soap (Resinol Chemical Co., Baltimore 1) 30c per cake ($1.37). Coconut oil content was low, but soap contained phenolic compounds, which CR considers to be undesirable in cosmetics or toilet articles. **2**

C. Not Recommended

Packer's Tar Soap (Packers Tar Soap, Inc., Mystic, Conn.) 25c per cake ($1.51). Contained rosin; also phenolic compounds. Free fatty acid content much above accepted limits. **2**

Fire Extinguishers Containing Methyl Bromide

A NUMBER of the unusually small fire extinguishers that have appeared on the market since the war have contained methyl bromide. Such extinguishers, often featured in department store advertising, are claimed to contain a liquid of exceptional effectiveness against fires in the home, office, garage, automobile, etc., in spite of their small size. Inhalation of considerable amounts of carbon tetrachloride vapor has caused serious poisoning or death, but the breathing of even *small amounts of methyl bromide* involves a serious hazard, with death as the possible outcome. The damage done may involve injury of the central nervous system which takes several months or several years to recover from, and likewise contact with the skin may cause injuries that do not heal readily.

The circular of one manufacturer using methyl bromide claims a new chemical formula said to make the extinguisher the equivalent of one many times its size and weight, mentions the harmlessness of the material to food, clothing, or furnishings, but gives no hint that inhaling it may involve a serious hazard to the person who attempts to put out the fire.

Methyl bromide volatilizes at once upon contact with hot surfaces, and the toxicity of the resulting gas has been estimated variously as from 4 to 7 times that of carbon tetrachloride, and about double that of well-known and deadly carbon monoxide. Many cases of methyl bromide poisoning, both fatal and nonfatal, have been reported during the past few years; among them are 10 fatalities, other than those mentioned in the introductory box accompanying this article, that occurred in connection with its use in fire extinguishers. Danger from accidental leakage of methyl bromide from fire extinguishers is much greater than with carbon tetrachloride.

There are 10 known cases altogether involving fatalities from methyl bromide in fire extinguishers in the United States, and 21 nonfatal accidents. There are several reports of serious illness and death involving leaks of methyl bromide from fire extinguishing equipment.

The National Institute of Health Bulletin No. 185, *The Toxicity and Potential Dangers of Methyl Bromide with Special Reference to its Use in Fire Extinguishers, and in Fumigation*, calls methyl bromide "a highly toxic material of insidious action,"

Editor's Note:

THE HAZARD of unfamiliar appliances has rarely been more tragically illustrated than by the recent death of six boys who died from the effects of methyl bromide poisoning in the cabin of an R.A.F. launch in Dundee harbour, England. The boys had boarded the launch to spend the night, opened a hatchway, and gone down into the cabin, and closed the hatchway again. One boy took a fire extinguisher from the wall and dropped it on the floor. Something came from the nozzle, but he smelled nothing. When he woke in the morning, he felt sick, but recovered after several weeks in the infirmary. Of the eight boys involved, only one other involved survived the exposure to the poisonous fumes of the methyl bromide extinguisher.

The temptation to use methyl bromide in fire extinguishers because of the exceptional effectiveness of the material has resulted in a number of such extinguishers being offered to consumers, and a good deal of department store advertising for such fire extinguishers, featuring their smallness and compactness, has appeared. Such extinguishers, unfortunately, have even been found acceptable by a large chemical laboratory supply house for laboratory use, and a nationally known commercial testing service whose findings have been used as a sales argument in the manufacturer's advertising, has also classified one of the extinguishers as "simple to operate and convenient to use," *failing entirely to mention the extreme toxicity of the material, which should have been well known to any laboratory qualified to do chemical tests and analyses for use in merchandising.* One of the widely read home and garden magazines has given this type of product a boost, even making the absurd mistake of saying that the special chemical used is harmless to anything but fires. (This gross and potentially very dangerous misstatement of the facts should carry an important lesson to editors of popular journals, who quite commonly try to handle technical questions without calling in professionally qualified, disinterested experts as consultants.)

Since this material was prepared, the situation with respect to methyl bromide extinguishers has become critical, and it is announced that the city Department of Health of New York City may actually ban public sale of fire extinguishers containing the deadly chemical. The conclusion has been reached that even the inclusion of suitable warning statements to users would not afford an adequate safeguard. The situation has become so menacing that the National Better Business Bureau has issued a valuable Research Bulletin (May 3, 1948) including a summary of important information so far available on the problem. The Indianapolis Better Business Bureau puts the great hazard of methyl bromide extinguishers very effectively in the following sentence: "There's not much use in saving your house, if you're not going to be around to live in it."

and states that its toxicity and inherent dangers "are too great to advocate the use of methyl bromide fire extinguishers by the general public as for use in automobiles and garages." A copy of this bulletin can be obtained from the Superintendent of Documents, Washington 25, D.C., at a charge of 15 cents.

Methyl bromide was used as an extinguisher of gasoline fires in engines, *but not in cabins* of airplanes of the armed services here and in England; installations were of such nature that occupants of the plane were not exposed to the toxic vapors. Previously important uses of methyl bromide have been as a refrigerant and, in a mixture with carbon dioxide, as a fumigant. Whether used as a fumigant or as a fire extinguisher, *use of methyl bromide should be restricted to personnel wearing gas masks.*

Underwriters' Laboratories, Inc., of Chicago, who are a leading authority on fire extinction problems, advise that they have refrained from accepting submittals for their tests of any extinguishers containing methyl bromide. CR has always been careful to advise that consumers should not buy or use any sort of fire extinguishers that lacks the approval of the Underwriters' Laboratories or the Associated Factory Mutual Fire Insurance Companies. To date, neither of these well-qualified organizations, highly competent in all questions relating to fire protection, has recognized or approved any methyl bromide extinguishers as suitable and safe for use by consumers.

A number of small fire extinguishers offered for ultimate consumer use have been found to contain methyl bromide, but their names are not given at this time since the manufacturers appear to be on the point of correcting their serious errors in using methyl bromide. A new substance, an invention of German origin, called chlorobromomethane (CB for short) is the material likely to be used in the future by manufacturers who have taken to heart the information which has been given them about the extreme dangers of methyl bromide and who have been influenced by the action of the New York City Department of Health, already referred to, as well as by the Underwriters' Laboratories' declining to entertain applications for approval of extinguishers using methyl bromide.

CB is not harmless by any means. It is worse than carbon tetrachloride in some respects and somewhat better in others from the standpoint of toxicity to the user of the extinguisher. Nevertheless, its adoption by manufacturers who have been using methyl bromide in the past is a great step forward in reducing the hazards which necessarily involve practically all use of the smallest and most convenient types of fire extinguishers by consumers.

Off the Editor's Chest

(*Continued from page 2*)

his needs, his purse, his desires with respect to convenience features and appearance, and a number of factors which depend upon the particular appliance. Thus some might be using an electrical refrigerator in a location where a little noise might make no particular difference; to others, noise might be a major factor. Some pay such a low rate for electricity that the cost of operation would be only a minor consideration, whereas in other localities that would be a major basis for decision, taking precedence over such questions as shelf arrangements and other factors that make for convenience or utility.

Another inquirer writes (on a post card):

> Please send me the names and quality listings of the best manufacturers of washing machines, vacuum cleaners, and television sets for consumer use.

The casual form of the inquiry indicates that the inquirer believes the answer is an easy one, but it is not. It would be neither brief nor simple, and it would cost a substantial sum to furnish it.

Still a third asks:

> Will you please send to me C.O.D., the superior brand manufacturer of each article in the followin list: facial soap, facial creams (cold, cleansing, soften ing, etc.), skin astringent, powder foundation, facial mask, sun tan lotion, skin protective lotion, lipstick, hand lotion, colognes, deodorant, tooth brush, tooth paste, mouth wash (antiseptic-garde), shampoo (hair is naturally curly, rather coarse), hair creme-set, hair brush, best material or devices for removal of hair from each of the following; (a) upper lip (b) legs (c) under arms (d) stray hairs at forehead—temples, your opinion of the Wallace "get thin to music" exercise method —or suggestion of more sufficient method of exercise, combination radio-phonograph, which is the best and what kind of washing machine, laundry soap for washing machine and for washing clothes by hand, iron, cook books, stove—full size and apartment size, bra's, hosiery, mattress, cream for wrinkles under eyes also for corners of lips. Please rush. Thank you.

That sounds like a tall order, but useful information for the consumer in most cases will be available for a person who is willing to purchase and read a considerable sheaf of printed material, for on most points there is a discussion or report in some past CR BULLETIN.

This inquirer, like the one first quoted, ob-

viously assumes that there is a one "best" or "superior" product necessarily available, when there may be none at all that merits recommendation. There is no cream, superior or otherwise, that will effectively remove wrinkles under the eyes or the corners of the lips, or anywhere else. Competent dental authorities have lately come to the conclusion that the use of toothpastes or other dentifrices in cleaning the teeth is probably undesirable. Facial masks have long been of dubious value.

The three inquiries are typical of some of the fifty to a hundred received in a day's mail during the busy season. Since it takes quite a bit of time merely to assemble the references to the thousands of earlier CR reports, it is not possible to provide any sort of informative reply by return mail, as is sometimes requested. Depending on the volume of inquiries at a given period, it normally takes four to six weeks to handle letters involving more than a routine request for the date of an issue containing our most recent report on, say, vacuum cleaners or dishwashers. This may seem a long time, but from our own experience in getting answers from government bureaus, college departments, and various technical services, it is actually no more than normal where the questions involved cannot be handled in routine fashion by a clerk, or where they require some technical knowledge or study.

Probably every publication receives odd requests for advice or aid, and CR is no exception. We have been asked where to buy marked playing cards; " a genuine Beryl Crystal made in Bohemia for use in Crystal Gazing"; how to go about establishing a cooperative cemetery; to evaluate the goals or activities of civic or commercial clubs such as Rotary, Kiwanis, and Lions; for the name and address of a chemist who could make an analysis of the Mexican jumping bean; and for a list of 15 or 16 most popular uses for such soap products as *Vel*, *Lux*, and *Ivory Snow* by a young lady who was apparently permitting us to bear the burdens of her preparation for entering a contest. Other requests for information somewhat outside our field have been for a list of companies manufacturing the latest, most efficiently designed equipment for Communion service, the preferred type of voting machine on the market (for installation by officials in an eastern state), and a comparative study of the various types and kinds of parking meters.

Then there are the letters from students who are writing term papers or theses that would require the services of several persons full time, if we were to undertake to reply in the great detail (and with the promptness) their writers often expect. Writes one from Pennsylvania: "I have chosen for my topic 'The Ethics and Economics of Advertising.' I am not sure yet exactly what I will include in my writing, so I would appreciate any material whatsoever you could send me."

From a New York City student comes a seven page list of claims compiled from the advertisements of a number of patent medicine products including *Bromo Seltzer*, *Ex-Lax*, *Listerine*, and *Sal Hepatica*, with the request that we "answer 'yes or no' to these claims as to their validity based upon your investigations. Any additional comment will be appreciated." To obtain that kind of advice from chemists and other technical consultants would cost any manufacturing company or its advertising agency many thousands of dollars in consulting services and even the Federal Trade Commission, the agency of the federal government which has jurisdiction over such claims and is empowered by law to pass on their truth or falsity, refuses to give specific yes or no judgments on such inquiries.

Still a third student asked for materials or references on the topic "Services That Stores Furnish or Should Furnish to Help a Person to be a More Effective and Satisfied Purchaser." The proper answer to that question is not a brief letter, but a book, and the student doubtless had no idea how much help he was asking for as a free service.

Many people apparently assume that technical experts have answers to all sorts of questions at their finger tips, as it were—perhaps in a card index file—so that when a question is received, it is only necessary to look up the key word and there is an answer ready to be copied off by a stenographer. Actually, technical knowledge takes no such convenient forms, and the number of questions that can be and are asked represent an almost infinite variety. Even if they could be compiled on cards they would be up-to-date for only a few months at best, and the cost of compiling and maintaining the card system would make the true cost of answers to many a "simple" question come to about the amount charged by a lawyer or physician for a consultation. (The best way to get an idea of how expensive it is to do the technical work that will provide answers to what appear to the average man to be simple questions is perhaps just to ask a chemist what he would charge to analyze a bottle of "hair tonic" or of sun-tan lotion, or a heating engineer what he would charge for selecting and specifying the best type and make of oil burner for your house.) *These services are not and never can be cheaply provided by anyone*, and it is well that consumers in general should obtain an idea of what it does cost to provide answers to questions that involve the application of expert knowledge, electrical, mechanical, and physical testing, chemical and bacteriological analyses, compilations from technical literature, etc.

Reading the morning mail at Consumers' Research is an interesting and stimulating task. Compiling the information requested, checking it, and typing it up in the proper form takes considerably

longer and requires the time of at least five members of the staff even though in a large proportion of cases we cannot undertake to do much more than list the references to and prices of previously issued CR material on the subjects.

As subscribers, particularly those who are familiar with the current costs of printing and paper, not to mention skilled professional and consulting services, will realize, the subscription fee of $3 a year for 12 monthly issues cannot possibly leave much, if any, margin to cover the costs of handling special inquiries. Those who have assumed that such information could be rendered free should bear in mind that CR sells no advertising, has no support from business or industry, has no endowment, no subsidy, no power to collect taxes to support its activities, and no substantial source of revenue beyond the subscription fees received and charges made in sales of BULLETINS and related material. It is not that we are unsympathetic with subscribers' special problems, but we have not found any competent researchers, typists, or stenographers who are willing to contribute their time for such service without charge. It would be very pleasant, perhaps, if there were a lot of technical people and trained, careful assistants heavily endowed by a foundation and ready to provide such services with the needed care, competence, and dependability, but we do not see any prospect that personnel and facilities for such work will be provided on a "no charge" basis, anywhere, for a long time to come.

Abridged Cumulative Index of Previous 1948 Issues Consumers' Research Bulletin

	Month and Page
Amplifiers, audio†	Feb., 14-16; Mar., 15
Arsenic and lead in foods	May, 11-12
Athlete's foot	Apr., 3-4
Automobiles, 1948†	July, 13-15
announcement re reports on '48 models	June, 22
Beard softener, before-shave†	July, 30
Bed rails, extenders†	July, 30
Bicycles†	June, 5-7
Binders for CR's Bulletins	June, 24
Camera, plate and film-pack†	Feb., 21
Cameras, foreign-made, discussion†	Mar., 29
miniature†	May, 23-24
motion picture†	Feb., 18
twin-lens reflex†	May, 23
Cars, used, question of trading in†	Feb., 7-8
Cleaner, household†	May, 30
jewelry and eyeglass†	May, 30
Cleaners and detergents, soapless†	Mar., 25-27
Clothes driers†	June, 20-21
Clothing, cotton, wrinkleproofing†	July, 3
Coffee, soluble†	June, 30
Concrete buildings, painting	July, 23-24
Corn and peas, canned†	July, 7-11
Corrections and emendations†	Jan., 13; Feb., 17; May, 10
Cream, hand†	July, 29-30
Dishwashing machines, three automatic, final report†	Mar., 23-24
portable†	Feb., 9-10
Editorial	each issue, page 2
Fire alarm device†	Jan., 26
Floor polisher†	Jan., 11
Floor-polishing attachments, vacuum cleaner†	Feb., 13
Flour, poisonous chemical in processing	Mar., 19-21
Food preparation, modern factory, reasons for caution	Apr., 25-26
Fruit juices, after meals	July, 29
Gasoline, automobile†	Apr., 18-19
Hair tonics, ineffective†	Jan., 14-16
Hedge trimmers, electric†	July, 16-17
Inks†	Mar., 30-32
Insects, noxious, on flowers, etc.	July, 3
household, controlling	July, 4
Iodine, cause of acne	May, 3-4
Ironing machines, electric†	Apr., 5-8
Lamps, electric, portable†	Feb., 21-23
Lawn mowers†	July, 5-7
home-built†	Apr., 13-18
Lights, night†	Mar., 33-34
Lip lacquer, care in use†	Apr., 29
Lipsticks†	June, 18-19
Loud-speaker, high-fidelity†	Jan., 13
Mattresses†	July, 11-12
Meat, supply	July, 4
Mineral oil, laxative, ill effects	June, 3
Motion pictures†	each issue
Nail lacquers†	May, 9-10
Openers, jar, can, and bottle†	June, 10
Outboard motors†	June, 8-10
Paint, auto, reduced price†	Mar., 10
Pans, baking, effect on browning foods	July, 3
Peas and corn, canned†	July, 7-11
Phonograph pickups†	Mar., 21-22; May, 19-20
Phonograph records†	each issue
Phonograph turntable units, low-priced†	Feb., 23-24
Phosphoric acid, use in foods	Jan., 3
Piano, toy†	Jan., 17
Plastic films for household use†	July, 21-22
Polisher, electric, floor†	Jan., 11
Powder, face†	Apr., 11-12
Preservative, wood†	July, 30
Projectors†	Feb., 18-21; May, 24
Radio, AM-FM†	Feb., 16-17; May, 16
automobile†	Feb., 14
clock, table-model†	June, 21
converter, FM†	May, 20
faults, and television	Feb., 24-25
FM, pre-emphasis and de-emphasis†	Jan., 21
phonograph combination†	May, 18; June, 24
receivers, table-model†	Mar., 11; May, 17-19
receivers and tuners, FM, faulty low-priced table models	Jan., 8
tuner, AM†	June, 24
AM-FM†	Feb., 16
Ranges, electric, sales decline	June, 4
gas†	Mar., 5-10
Rat control methods†	Mar., 12-15
Recorders, wire†	Jan., 23-25
Refrigerators, four electric†	Mar., 16-18
Rubber footwear, men's and women's†	Apr., 9-10
Rugs and carpets — II	Jan., 16-18
Scale, baby†	Apr., 10; 29, 30
Scouring powder (Old Dutch Cleanser)†	Apr., 30
Shampoo, synthetic detergent (Halo)†	Apr., 29
misbranding†	Apr., 4; June, 4
Sheets, crib, waterproof†	June, 19-20
Shirt, man's white†	Apr., 19
Shoes, waterproofer for soles†	June, 30
children's†	May, 5-8
Skin, absorption of toxic substances	July, 4, 29
Slide rule, photographic†	Apr., 8
Soap substitute (Leisure)†	Mar., 38
Soapless cleaners and detergents	Mar., 25-27
Stain remover kit†	Apr., 12
Sunglasses, improved quality	July, 3
Tanks, aluminum, fuel oil storage	June, 29-30
Television, present boom	July, 17-20
Television, table-model†	June, 22
Thread, sewing†	Jan., 12-13
Tires, automobile†	Jan., 19-20
Toilet seats for babies†	Jan., 25-26
Tooth decay	July, 3
toothpastes and powders, as cause	June, 29
Vacuum cleaners†	Jan., 9-11; May, 21-22
for autos†	July, 24
Washing machines, automatic†	Feb., 5-6; June, 11-14, 17
availability of parts	May, 25
non-automatic†	June, 23
Water, drinking, contaminated, effects	July, 4
Water heaters, tankless†	May, 13-16

†indicates that listings of names or brands are included.

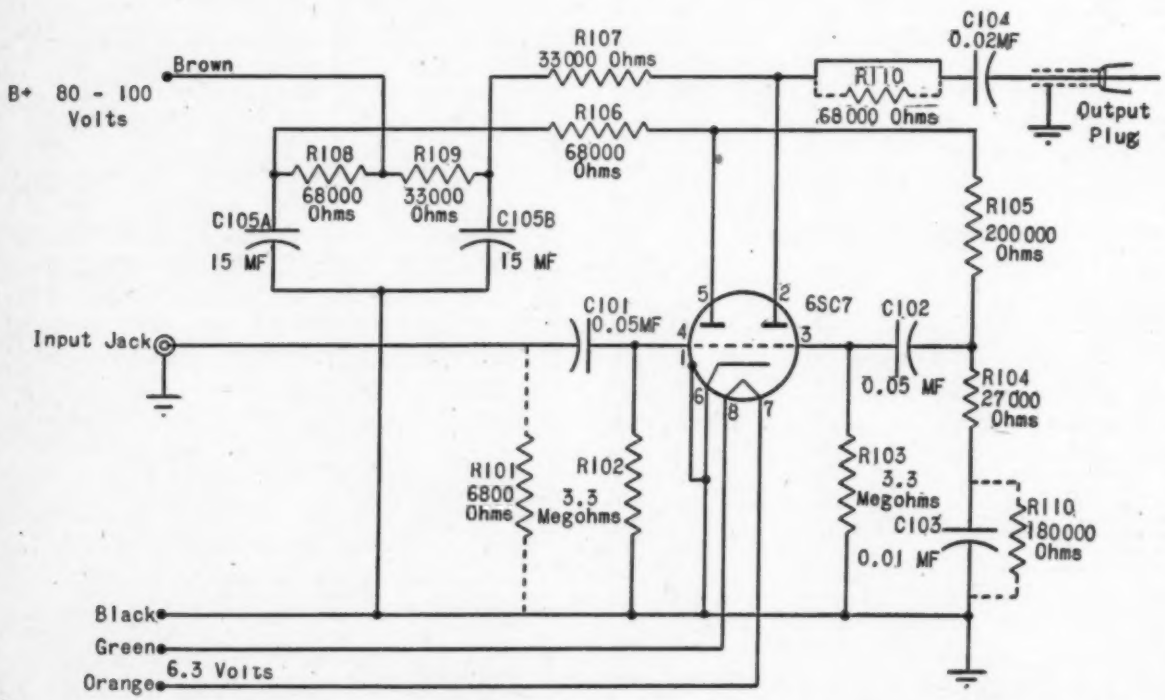
The GE Preamplifier for the GE Variable Reluctance Pickup Cartridge

MANY have noticed that the response from the preamplifier manufactured by General Electric for use with their *Variable Reluctance* cartridge was deficient in both the high and low frequencies. Tests on one of these units which was recently purchased indicate that General Electric have modified the circuit in some respects so that the bass response is now acceptable. However, there is still undue attenuation of the high-frequency response from the standpoint of persons who like wide-range (high-fidelity) reproduction.

Because of the deficiencies of the preamplifier as originally supplied by GE in these respects, quite a number have built preamplifiers according to a different circuit. Nevertheless, since GE's preamplifier is very inexpensive and represents excellent choice of the tube and of various circuit constants, except in minor respects, it is believed that the purchase of the *GE* preamplifier and modification of it in accordance with the following suggestion would be the most practical solution to the problem at present of providing good and sufficient output from the *GE* pickup to drive the regular amplifier in a radio receiver or a separate audio amplifier.

Referring to the circuit diagram, the high-frequency response can be increased by removing resistor R101 (6800 ohms), the input load resistor. In the recent model, "shorting out" the 68,000 ohm resistor marked R110 is also necessary. These changes will result in the response at 10,000 cycles being only 3 to 6 decibels below a flat characteristic curve, and this much drop from the ideal line is not considered undesirable, especially for playing phonograph records. As a matter of fact, it is believed the amount of falling off in the treble mentioned will be about correct, as most of the current records contain that much pre-emphasis or exaggeration of the high-frequency range, which would just about be compensated by a slightly falling characteristic.

The deficient low-frequency response on the older models can be increased by removing the 180,000 ohm resistor marked R110. This brings the bass response of the *GE* pickup up to within 2



The above schematic diagram shows the recommended changes in the preamplifier as supplied by General Electric Co., for use with the GE Variable Reluctance *cartridge. On some older models, the Brown B+ lead may be Green or Red, the Green 6.3 volt filament lead may be Orange or Brown, and the Orange lead Brown.*

db. of the flat characteristic at 50 cycles. When used in conjunction with records having a 500-cycle crossover point, the over-all response curve after these changes are made is considered far superior to the original for general home record-player use, and will probably be a good deal better than is warranted by the quality of performance afforded by all but the very best (and most expensive) of the amplifiers available either in radio receivers or bought as separate units.

This preamplifier, as modified, can be used either with the *GE*, the *Pickering*, or the *Clarkstan* pickup. Response using it in conjunction with any of the above pickups will be correct within 2 db. from 50 to 10,000 cycles.

A. Recommended

Preamplifier, Model M5C (General Electric Co., Syracuse) $5.82. A preamplifier for use with the *GE Variable Reluctance*, No. 1RM6C, cartridge (see last paragraph of text). Recommendation applies to preamplifier modified in accordance with changes carried out in the accompanying text. **AA1**

Electric Hair Clippers

With prices of haircuts as they are, substantial savings can be made in homes where there are several boys, if someone in the family takes over the job of family barber. Most amateurs in the tonsorial art begin their careers armed with an inexpensive outfit of shears, comb, and hand clippers. The skill necessary to achieve at least passable results on children's hair with these implements is rather easily acquired and the man or woman of the house who has done cutting with a hand-powered clipper may look forward with confidence to doing better work with one of the electrically-powered appliances. These cost several times as much as hand clippers, and while skill can be acquired with use, it is not to be expected that they will produce an immediate great improvement in the quality of the haircuts.

Although considerable similarity exists between electric shavers and clippers, certain basic differences in the cutting heads make the shaver impractical for haircutting. The shaver can be used, instead of the conventional razor, however, for finishing the edges of the hair. The electric clippers included in CR's tests were all of the type suitable for home use. They are priced in a range below that of the expensive professional type clippers used in barber shops.

Clippers were examined for design features, completeness of name plate data, construction, and appearance. Hardness of the cutters was determined on a Rockwell hardness tester. Temperature rise of the motor during 15 minutes' continuous operation was noted. Leakage current was measured, and all the clippers were subjected to the standard 900-volt insulation break-down test; unless otherwise noted, they passed such tests successfully. Wattage ratings of the several clippers are not given because they were small in all cases and hence not important in effect on the electricity bill. Power requirements ranged from 9½ watts for the *Cadet* to 17.3 for the *Queen*.

Use tests were made by a self-taught home barber with some 18 months' experience. Judgment of performance was based on ease of manipulation, quality of the haircut produced, etc.

All the clippers tested had vibrator-type motors; two, however, had rotating parts, and those two showed severe radio interference (not noticeable in others). All had close-cutting heads suitable for haircutting.

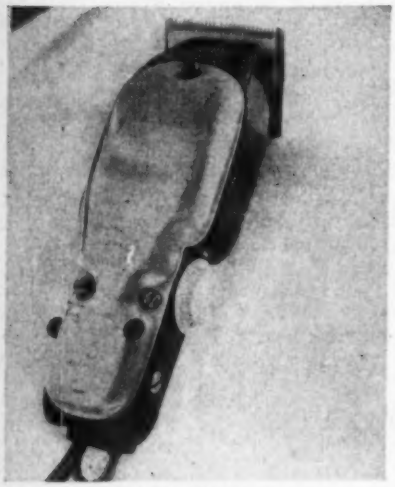
One-year-from-date-of-purchase guarantees against defects in workmanship and materials accompanied each clipper, except as noted.

Ratings are cr48.

B. Intermediate

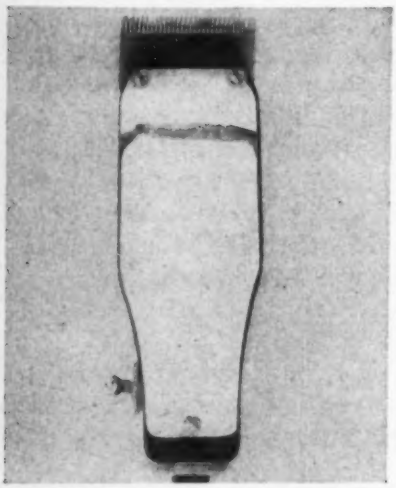
Wahl Solid Small (Wahl Clipper Corp., Sterling, Ill.) $9.75. Well made. Had laminated armature, and tension and stroke adjustments. Equipped with lightweight cord of adequate length (7 ft. 9 in.). Somewhat crude in appearance due to poor finishing. Fixed cutter was uniformly very hard; moving blade was much less hard, and not uniform. Blades became unbearably hot during 15 minutes' continuous operation; since the aver-

age duration of home use would probably be not longer than 5 minutes, this fault was not judged to be serious. Fast cutting; easier to handle than the *Andis* because considerably lighter; little vibration. Carried "one year" guarantee but this was not of a satisfactory type as date of expiration was not governed by date of purchase but terminated at a time set by the manufacturer; in a given case, the buyer might receive a guarantee good for only a month or two. **1**



Wahl Solid Small

Andis Junior DeLuxe, Model JD (Andis Clipper Co., Racine, Wis.) $15. Ruggedly built, with all-metal case, an aid in maintaining good alignment of parts. Had tension and stroke adjustments. Equipped with heavy cord of adequate length (7 ft. 7½ in.). Best appearance of clippers tested. Cutter blades were uniformly very hard. Temperature rise was not excessive during 15 minutes' continuous operation. The *Andis* was found fast cutting in use but rather hard to control because of its weight (20½ oz.) and vibration. Failed proof-voltage test; otherwise would have been rated *A*. **3**



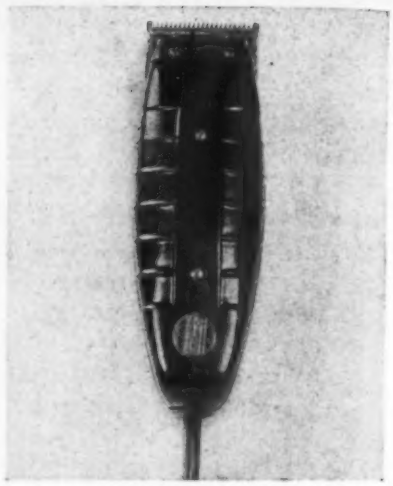
Andis Junior DeLuxe, Model JD

C. Not Recommended

Cadet, Model 6 (Electro Tool Corp., Racine, Wis.) $11.50. Vibrator of lightweight construction. Sliding head adjustment. Lightweight cord of satisfactory length (6 ft. 1 in.). Cutters were adequately hard but were less rugged and not as wide as others examined. During 15 minutes' operation, temperature rise was moderate; blades became quite warm though bearable. Leakage current was somewhat above recognized limits. Clipper was very easy to use because of light weight but did not cut cleanly and swath was narrow; blade-holding screw rubs on neck. **2**

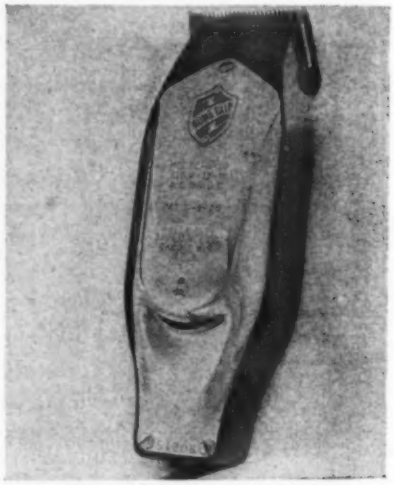
* * *

The following two clippers are almost identical mechanically except that the *Queen* is self-starting. The motors are well made. Tension and stroke adjustments were not required. Lightweight cord of satisfactory length (6 ft. 7 in.). Hardness of cutters was satisfactory but was not uniform. During 15 minutes' operation, the *Home Clip* had only moderate temperature rise but ran with a pronounced pulsation; the *Queen* had an appreciable rise in temperature and smoked slightly for 13 of the 15 minutes. Both motors were relatively hard to start because of design defects.



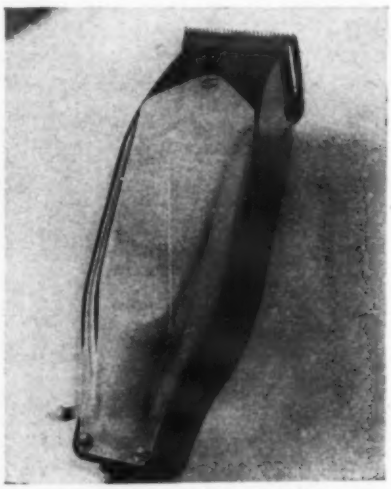
Cadet, Model 6

Home Clip, Model H-10 (Belle City Appliance Co., Racine, Wis.; Montgomery Ward's Cat. No. 53 — 4755) $12.75, including comb and shears. Severe radio interference. **2**



Home Clip, Model H-10

Queen, Model Q-90 (Allover Mfg. Co., Racine, Wis.; Montgomery Ward's Cat. No. 53—4750) $14.50. Severe radio interference. **3**



Queen, Model Q-90

PHONOGRAPH RECORDS

By Walter F. Grueninger

Please Note: In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Delius: *Brigg Fair.* Royal Philharmonic Orchestra under Beecham. 4 sides, RCA Victor Set 1206. $3.50. An English rhapsody, one of Delius' best works, composed in the form of theme and variations. Since Beecham is Delius' foremost interpreter, the set is welcome though it lacks clarity. Some surface noise.
Interpretation AA
Fidelity of Recording B

Franck: *Symphony in D Minor.* Paris Conservatory Orchestra under Münch. 8 sides, English Decca Set 36. $9.45. Most critics regard this as a great symphony, though a minority dissent. Neither the expansive performance nor the recording are definitive. Of the domestic sets, I prefer dramatic, Monteux, RCA Victor Set 840, which is nearly as well recorded on noisier surfaces. Beecham's interpretation is unique, recorded with fewer highs on Columbia Set 479.
Interpretation A
Fidelity of Recording A

Mozart: *Eine Kleine Nachtmusik.* London Philharmonic Orchestra under Beecham. 4 sides, RCA Victor Set 1163. $3.50. Most famous instrumental serenade. Beecham fusses with tempi, dragging out the last movement, for example, to 4 min. 40 sec. whereas Weingartner, Columbia Set MX 187, does it in 3 minutes, the usual time. My pressing sounds "dirty." Overall, not as desirable as Weingartner's which remains my first choice.
Interpretation B
Fidelity of Recording B

Rachmaninoff: *Symphony No. 2.* Minneapolis Symphony Orchestra under Mitropoulos. 12 sides, RCA Victor Set 1148. $8.50. Richly melodic, sprawling work. Taut reading and satisfactory recording though limited in dynamics and (my set) pressed on noisy surfaces. Rodzinski in 3-year-old Columbia Set 569 offers a more romantic approach, smoother recording and more quiet surfaces, winning out.
Interpretation A
Fidelity of Recording A

Schubert: *Symphony No. 9 in C Major* (11 sides) & **Mendelssohn:** *A Midsummer Night's Dream*—Scherzo only (1 side). NBC Symphony Orchestra under Toscanini. RCA Victor Set 1167. $8.50. A masterpiece. Toscanini applies the pressure which makes for a different interpretation than Bruno Walter's in Columbia Set 679. Detail is heard to better advantage under Toscanini but Walter's over-all conception seems closer to Schubert. Recording of both sets satisfactory with Columbia's more resonant. Victor offers extra value in an outstanding filler.
Interpretation A
Fidelity of Recording AA

Schumann: *Symphony No. 3* ("Rhenish"). Minneapolis Symphony Orchestra under Mitropoulos. 8 sides, RCA Victor Set 1184. $6. Romantic impressions of life on the Rhine a century ago played energetically, never with sentiment, which will rule it out for some in favor of Bruno Walter's six-year-old Columbia Set 464. A few surfaces are noisy, recording is hard, lacking warmth though it possesses more body and is generally superior to the Columbia set.
Interpretation B
Fidelity of Recording A

Tchaikovsky: *Symphony No. 4.* Philadelphia Orchestra under Ormandy. 10 sides, Columbia Set 736. $7.10. Tchaikovsky considered this his finest work. Ormandy's reading is straightforward but it lacks distinction. Glassy recording, with the climax which begins side 10 completely destroyed due to lower volume level than the build-up which concludes side 9. Some surface noise. My first choice remains Koussevitzky's RCA Victor Set 327 for its moving performance and acceptable recording.
Interpretation A
Fidelity of Recording A

Wagner: *Parsifal*—Prelude and Good Friday Spell. Boston Symphony Orchestra under Koussevitzky. 6 sides, RCA Victor Set 1198. $4.75. Sublime, lofty compositions. Koussevitzky's understatement lacks the fervor and glow of Furtwängler's performance in the old RCA Victor Set 514, not now catalogued, but his recording is slightly better though not as wide ranged as dozens of contemporary sets.
Interpretation A
Fidelity of Recording A

Franz Lehar Waltzes. Zurich Tonhalle Orchestra under the Composer. 6 sides, London Set 10. $7.35. "Eva," "Count of Luxembourg," "Gold and Silver" played in Viennese style by a large orchestra. Imported, delectable, full range recording which gives you an idea why England's record exports have reached a new high.
Interpretation AA
Fidelity of Recording AA

Milhaud: *Symphony No. 1* (7 sides) & *In Memoriam* (1 side). Columbia Broadcasting Symphony under the composer. Columbia Set 704. $6. A substantial work by France's foremost living composer. Virile performance. Spacious recording.
Interpretation AA
Fidelity of Recording AA

Rimsky-Korsakoff: *Antar Symphony.* San Francisco Symphony Orchestra under Monteux. 6 sides, RCA Victor Set 1203. $4.75. Weak suite. Superbly stylistic performance and finely balanced recording.
Interpretation AA
Fidelity of Recording AA

Roussel: *Petite Suite* (3 sides) & **Faure:** *Pavane* (1 side). Paris Conservatory Orchestra under Münch. English Decca Set 37. $5.25. Colorful, insignificant work played with finesse and recorded with full bass and middle range but with highs rolling off early.
Interpretation AA
Fidelity of Recording B

Sibelius: *En Saga* (5 sides) & *Valse Triste* (1 side). London Philharmonic Orchestra under de Sabata. English Decca Set 49. $7.35. Wild, somber symphonic poem—Sibelius' most popular. Performance lacks sustained propulsion. Recording is none too effective as evidenced by strings and the excessively soft recording of side 1. Some surface noise.
Interpretation B
Fidelity of Recording B

Strauss: *Ein Heldenleben.* Pittsburgh Symphony Orchestra under Reiner. 10 sides, Columbia Set 748. $7.25. Uneven work depicting the life of a hero. Reiner's vital, impelling conception certainly matches Ormandy's in Victor Set 610. Yet, Ormandy's recording offers a bloom absent in the resonant but thinner (particularly on top) reproduction of Reiner. Moreover, the loudest passages of Reiner—closing grooves of side 6, for example—lose most of the detail. Overall, Ormandy.
Interpretation AA
Fidelity of Recording A

Strauss: *Suite from Der Rosenkavalier.* Philadelphia Orchestra under Ormandy. 6 sides, Columbia Set 742. $4.75. Richard Strauss arranged this suite from his opera. When sung, the music seems simpler, more satisfying. Fluent, graceful performance with plenty of UM—sa—sa in the great waltz. Life size recording which is not always transparent, due in part to the complex orchestral score. Audible surfaces. Preferable to competitive Victor Set 997 as to arrangement, performance, recording.
Interpretation AA
Fidelity of Recording A

Eduard Strauss: *Race Track Galop* & **Johann Strauss, Jr.:** *Perpetuum Mobile* and *Thunder and Lightning Polka* & **Johann Strauss, Sr.:** *Radetzky March.* Cleveland Orchestra under Leinsdorf. 2 sides, Columbia 12543. $1.25. Big value in Strauss pops. Spirited performance.
Interpretation AA
Fidelity of Recording A

CONCERTO

Ravel: *Concerto* (5 sides) & **Bernstein:** *Seven Anniversaries* —Nos. 4 and 5 only (1 side). Leonard Bernstein (pianist-conductor) and the Philharmonia Orchestra of London. RCA Victor Set DV 15. $7. The concerto combines jazz idiom and overtones of pavane. Dull, dry, throaty, low volume level recording. Bernstein's performance, lacking in nuance, is followed faithfully by the orchestra. Vinylite surfaces.
Interpretation A
Fidelity of Recording B

Ravel: *Piano Concerto for the Left Hand.* Casadesus and the Philadelphia Orchestra under Ormandy. 4 sides, Columbia Set MX 288. $3.50. A *tour de force,* Ravel's last major work. Remarkable performance. Recording of opening measures featuring the contrabassoon is too soft, not clearly defined. Otherwise it is satisfactory though restricted as to tonal and dynamic range. Turn up your volume for best results.
Interpretation AA
Fidelity of Recording A

Schumann: *Concerto in A Minor.* Rudolf Serkin (piano) with the Philadelphia Orchestra under Ormandy. 8 sides, Columbia Set V 734. $9. Third recording within three years, signifying the popularity of this fine, romantic concerto. Occasionally Serkin's opening movement is stiff and awkward. Thereafter, the music *flows,* with the Philadelphians giving effective support. Sometimes the piano recording sounds muddied. Certainly Rubinstein's piano in Victor Set 1175 is brighter but his orchestra is inferior. Overall, Serkin's set is the better of the two.
Interpretation AA
Fidelity of Recording A

CHAMBER AND INSTRUMENTAL

Americana. Louis Kaufman (violin). 6 sides, Vox Set 627. $4.75. Unimportant, gay, folksy pieces well arranged by Still, McBride, Copland, etc. Expertly played. Range of frequencies recorded does not seem unusually high but the live recording chamber adds luster. Most surfaces are quiet. Is this the new, artificial reverberation?
Interpretation AA
Fidelity of Recording AA

Bach Selections. Andres Segovia (guitar). 4 sides, Musicraft Set. 90. $2.85. "Prelude," "Courante," "Gavotte," etc., originally written for cello, in some cases, and for lute in others. Adjectives fail when I describe the performance of this great guitarist. Satisfying recording and quiet surfaces. Sides 2 and 3 of my set were badly warped.
Interpretation AA
Fidelity of Recording AA

Brahms: *Sonata No. 3 in D Minor.* Isaac Stern (violin), Alexander Zakin (piano). 6 sides, Columbia Set 730. $4.75. An outstanding sonata, played with true Brahmsian feeling. Good recording but surfaces are audible.
Interpretation AA
Fidelity of Recording AA

Mozart: *Sonata in F Minor* (K 310) (3 sides) & **Hindemith:** *Sonata No. 2* (3 sides). Jacques Abram (piano). Musicraft Set 89. $3.85. Abram hammers out a performance of the fine Mozart son..ta which is as dry as the recording. The compact, complex Hindemith he plays with facility.
Interpretation A
Fidelity of Recording A

Organ Music of Bach. E. Power Biggs (organ). 10 sides, Columbia Set 728. $7.25. Surface-deep performances of monumental organ works. Recorded in St. Paul's Chapel, Columbia University. Lengthy, disturbing reverberation period.
Interpretation B
Fidelity of Recording B

Stravinsky: *L'Histoire du Soldat* (6 sides) & *Octet for Wind Instruments* (4 sides). Members of the Boston Symphony Orchestra under Bernstein. RCA Victor Set 1197. $7.25. Strictly for advanced listeners but likely to please many of them. Expressive, vigorous performance, but questionable tempi and balance prevent unqualified approval. Spaciously recorded.
Interpretation A
Fidelity of Recording AA

VOCAL

Byrd: *3 Motets.* Harvard Glee Club and the Radcliffe Choral Society under Woodworth (3 sides) & *Keyboard Pieces.* Putnam Aldrich (harpsichord) (3 sides). Technichord Set T 11. $5.88. The motets are ably performed by 24 voices in an appropriately resonant hall. The keyboard music comes through louder and with more highs, but the performance is stiff. Some surface noise, side 2 swishes. Miniature score supplied.
Interpretation A
Fidelity of Recording A

Songs of Old Vienna. Erna Sack (soprano). Max Lichtegg (baritone). 6 sides, London Set 11. $7.35. "Vienna Woods," "Village Swallows," etc., sung by a remarkable vocal acrobat aided on two sides by a German-trained baritone. Miss Sack finds it easy to ascend to C above high C and SOMETIMES hits it on the nose! For a miss, hear the last note on "Wiener Blut." Those who admire this kind of singing and those who collect novelties may find this set worth while. Recording favoring the voice over the orchestra not objectionable here.
Interpretation B
Fidelity of Recording AA

LIGHT AND MISCELLANEOUS

Dietz and Schwartz: *Inside U.S.A.*
Buddy Clark and Pearl Bailey (singers). 6 sides, Columbia Set C 162. $3.15. Acceptable performance in radio and nightclub style.
Interpretation B
Fidelity of Recording AA

Beatrice Lillie, Jack Haley, Perry Como, etc. 8 sides, RCA Victor Set K 14. $5. More Broadway show atmosphere and music. Nevertheless, vocal weaknesses crop up frequently. Uneven recording.
Interpretation A
Fidelity of Recording A

Gershwin: *Liza* & **Sherr:** *Yours.* Ben Light (piano) and the Tempo Trio. 2 sides, Tempo 598. $1.05. (8534 Sunset Boulevard, Hollywood, Calif.) Lively performance and exceptionally realistic recording, pressed on surfaces that are nearly inaudible. *A must for Hi-Fi fans.* Tempo attaches the output of an electrically amplified instrument such as the electric guitar or Novachord directly to the recording amplifier, cutting out one possible step of frequency limitation. They claim a range of 30 to 12,000 cps. Other impressive Tempo disks, so far as fidelity is concerned, are *It Had to Be You* and *I'll Get By* on Tempo 600—which I judge to include piano, guitar, drums, Hammond organ, Novachord—and *Love Nest* and *Deep Purple* on Tempo 592 played by a piano, Hammond organ and harp.
Interpetation AA
Fidelity of Recording AA

Johnston-Coslow: *My Old Flame* & **Finberg-Brandt:** *People Are Funnier Than Anybody.* Spike Jones and His City Slickers. 2 sides, RCA Victor 20-2592. 75c. Included are takeoffs on Pedro and Peter Lorre. The *Flame* is a SCREAM, one of the screwiest this group has done in years. An icebreaker for any party. Overside—ordinary.
Interpretation A
Fidelity of Recording A

London Library Service. The London Gramophone Corporation offers a library of specially recorded English disks for use in industrial plants, wired music operations and radio stations. The library stems from the successful wartime "Music While You Work" programs of the BBC. Standard and popular tunes are played by instrumental groups and recorded at constant volume level. This eliminates monitoring and follows psychologists' recommendations for "background music," though I do not favor it for home listening. The sample disks I heard offered capable performances and high fidelity recording. The library is leased at varying prices which begin at $25 a month. Write to 16 W. 22 Street, New York 10, N.Y.

Music for Romancing. Paul Weston and His Orchestra. 8 sides, Capitol Set C D 81. $4. Pleasant, strict tempo performance of "Time on My Hands," "Poor Butterfly," "Sleepy Time Gal," etc.
Interpretation AA
Fidelity of Recording A

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Charm, Chicago Daily Tribune, The Christian Century, Cue, Daily News (N.Y.), *The Exhibitor, Harrison's Reports, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Successful Farming, Time, Variety* (weekly), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, Vitacolor, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	4	—	**Adventures in Silverado**	*wes AYC*
—	6	4	**Adventures of Casanova**	*adv A*
—	7	7	**Albuquerque**	*wes-c A*
—	3	5	**Alias a Gentleman**	*com A*
2	8	8	**All My Sons**	*dr A*
—	5	3	**Angelina**	*propaganda-dr A*
—	4	1	**Angels' Alley**	*com AYC*
—	6	12	**Anna Karenina**	*dr A*
—	7	7	**Another Part of the Forest**	*dr A*
—	6	2	**Antoine et Antoinette**	*com A*
—	5	9	**April Showers**	*mus-com A*
1	2	11	**Arch of Triumph**	*war-dr A*
—	7	9	**Are You With It?**	*mus-com AY*
—	4	3	**Argyle Secrets, The**	*cri-mel A*
—	6	—	**Arizona Ranger, The**	*wes A*
—	2	4	**Arthur Takes Over**	*com A*
—	3	3	**Assigned to Danger**	*cri-mel AY*
—	2	7	**Bad Sister**	*nov A*
—	10	—	**Beauty and the Beast**	*fan A*
—	12	5	**Berlin Express**	*war-mel AY*
—	5	1	**Best Man Wins**	*com A*
—	2	2	**Beyond Glory**	*dr A*
3	5	8	**B. F.'s Daughter**	*nov A*
1	10	5	**Big City**	*mus-dr AYC*
5	9	2	**Big Clock, The**	*cri-mel A*
—	5	1	**Big Punch, The**	*dr A*
—	—	5	**Big Town Scandal**	*mel AYC*
—	12	1	**Bill and Coo**	*com-c YC*
1	12	3	**Bishop's Wife, The**	*fan A*
—	3	10	**Black Bart**	*wes-c AY*
—	2	2	**Black Hills**	*mus-wes AYC*
—	1	5	**Blind Desire**	*dr A*
—	2	1	**Blonde Ice**	*mel A*
—	3	2	**Blondie's Anniversary**	*com AYC*
—	3	1	**Blondie's Reward**	*com AYC*
—	—	5	**Bohemian Rapture**	*mus-biog A*
—	3	2	**Bold Frontiersman, The**	*wes AYC*
1	8	4	**Bride Goes Wild, The**	*com A*
—	7	4	**Brothers, The**	*dr A*
—	—	7	**Buckaroo from Powder River**	*mus-wes AYC*
—	5	4	**Caged Fury**	*mel AY*
—	2	3	**California Firebrand**	*mus-wes-c AYC*
2	13	2	**Call Northside 777**	*doc-mel A*
—	5	3	**Campus Honeymoon**	*mus-com A*
—	—	5	**Campus Sleuth**	*mus-com AY*
1	10	5	**Captain from Castile**	*hist-dr-c A*
—	2	2	**Carson City Raiders**	*wes AYC*
—	—	—	**Cary and the Bishop's Wife** (See Bishop's Wife, The)	
—	6	8	**Casbah**	*mus-mel A*
—	7	1	**Challenge, The**	*mys-mel AY*
—	1	3	**Clandestine**	*war-dr A*
—	1	7	**Close-Up**	*war-mel A*
—	—	5	**Cobra Strikes, The**	*cri-mel A*
—	6	—	**Confessions of a Rogue**	*com A*
1	4	—	**Coroner Creek**	*wes-c A*
—	3	2	**Counterfeiters, The**	*mel A*
—	2	3	**Crime and Punishment**	*dr A*
—	—	3	**Crossed Trails**	*wes AYC*
—	4	1	**Dammed, The**	*war-dr A*
—	3	4	**Dangerous Years**	*mel AYC*
—	3	—	**Date With Judy, A**	*mus-com-c AY*
—	2	4	**Day of Wrath**	*mel A*
—	7	6	**Dear Murderer**	*cri-mel A*
—	6	2	**Design for Death**	*war-doc A*
—	1	3	**Devil's Cargo**	*mys-mel A*
—	—	5	**Docks of New Orleans**	*cri-mel AY*
3	14	1	**Double Life, A**	*dr A*
—	4	6	**Dream Girl, The**	*com A*
—	1	8	**Dreams That Money Can Buy**	*fan-c A*
—	7	—	**Dude Goes West, The**	*wes-com AYC*
2	4	—	**Easter Parade**	*mus-com-c AYC*
3	6	2	**Emperor Waltz, The**	*mus-com-c AY*
—	1	6	**Enchanted Valley, The**	*dr-c YC*
—	1	4	**End of the River**	*dr A*
—	3	3	**Escape**	*nov A*
1	5	3	**Eternal Return, The**	*dr A*
1	6	2	**Fanny**	*dr A*
—	5	1	**Farrebique**	*dr A*
—	2	3	**Feudin', Fussin', and A-Fightin'**	*mus-com AYC*
—	8	4	**Fighting Father Dunne**	*dr AYC*
—	5	1	**Fighting Mad**	*mel AY*
—	—	3	**First Opera Film Festival**	*mus-dr A*
—	3	9	**Flame, The**	*cri-mel A*
—	3	4	**Fledermaus, Die**	*mus-com-c A*
3	3	1	**Foreign Affair, A**	*mus-com A*
1	11	2	**Fort Apache**	*wes AYC*
1	7	—	**Four Faces West**	*wes-dr AYC*
—	1	5	**French Leave**	*com AY*
—	2	1	**Fric-Frac**	*com A*
—	8	1	**Fuller Brush Man, The**	*cri-com A*
—	6	1	**Fury at Furnace Creek**	*wes AYC*
—	5	—	**Gallant Legion, The**	*mus-wes AYC*
—	4	3	**Gay Intruders, The**	*com A*
—	5	1	**Gay Ranchero, The**	*mus-wes-c AYC*
—	—	3	**Gelosia**	*cri-dr A*
—	8	2	**Give My Regards to Broadway**	*mus-com-c AY*
—	3	5	**Glamour Girl**	*mus-com A*
—	10	6	**Good News**	*mus-com-c AYC*
—	2	3	**Great Glinka, The**	*mus-biog A*
—	10	2	**Green Grass of Wyoming**	*dr-c AYC*
—	1	4	**Guns of Hate**	*wes AYC*
—	—	9	**Half-Past Midnight**	*mys-mel A*
—	2	7	**Hatter's Castle**	*mel A*
—	1	3	**Hawk of Powder River, The**	*wes AYC*
—	3	13	**Hazard**	*com A*

A	B	C		
—	—	5	**Heart of Virginia**	*dr AYC*
—	2	3	**Henry IV**	*hist-dr A*
—	2	6	**Here Comes Trouble**	*com-c A*
1	8	8	**High Wall**	*mel A*
—	11	—	**Holiday Camp**	*com A*
1	8	5	**Homecoming**	*war-dr A*
—	4	2	**Hunted, The**	*mel A*
—	3	4	**I Became a Criminal**	*cri-mel A*
—	3	2	**I, Jane Doe**	*mel A*
5	11	1	**I Remember Mama**	*com AYC*
—	1	5	**I Wouldn't Be in Your Shoes**	*cri-mel A*
1	5	9	**Ideal Husband, An**	*com-c A*
—	2	4	**Idiot, The**	*dr A*
1	6	5	**If You Knew Susie**	*mus-com AYC*
—	11	8	**If Winter Comes**	*dr A*
—	5	2	**Inside Story, The**	*com AYC*
—	2	9	**Intrigue**	*mel A*
3	12	2	**Iron Curtain, The**	*doc-mel AYC*
—	2	13	**Jassy**	*nov-c A*
1	5	3	**Jenny Lamour**	*mus-mel A*
—	3	2	**Jiggs and Maggie in Society**	*com AY*
—	4	1	**Jinx Money**	*mys-mel AY*
—	—	3	**King of the Bandits**	*wes AYC*
—	1	5	**King of the Gamblers**	*mel A*
—	5	11	**Lady from Shanghai, The**	*mus-mel A*
—	3	4	**Last Days of Boot Hill**	*mus-wes AYC*
—	4	4	**Let's Live Again**	*com A*
—	6	12	**Letter from an Unknown Woman**	*dr A*
—	1	5	**Lightnin' in the Forest**	*cri-com A*
2	8	1	**Lost One, The**	*mus-dr A*
—	4	2	**Lover's Return, A**	*com A*
—	1	3	**Lucky Bride, The**	*mus-com A*
—	2	5	**Lulu Belle**	*mus-mel A*
—	2	6	**Madonna of the Desert**	*mel AY*
—	1	7	**Main Street Kid, The**	*com AY*
—	1	5	**Man from Texas, The**	*wes A*
—	1	12	**Man of Evil**	*mel A*
—	3	—	**Man-Eater of Kumaon**	*mel A*
1	1	1	**Marius**	*com A*
—	1	5	**Mary Lou**	*mus-com AY*
—	8	4	**Mating of Millie, The**	*com AY*
—	3	6	**Meet Me at Dawn**	*com A*
3	7	2	**Melody Time**	*mus-car-c AYC*
—	3	1	**Michael O'Halloran**	*dr AYC*
—	3	1	**Mickey**	*mus-com-c AYC*
—	1	3	**Mine Own Executioner**	*mel A*
—	7	5	**Miracle Can Happen, A**	*com A*
3	6	8	**Miracle of the Bells**	*dr AYC*
—	2	2	**Money Madness**	*cri-mel AY*
1	10	2	**Mr. Blandings Builds His Dream House**	*com A*
—	4	2	**Mr. Orchid**	*war-dr A*
—	—	8	**Mr. Reckless**	*mel A*
—	3	3	**My Dog Rusty**	*dr AY*
2	6	6	**My Girl Tisa**	*dr AY*
—	11	3	**My Wild Irish Rose**	*mus-biog-c AY*
—	1	2	**Nais**	*dr A*
—	6	1	**Noose Hangs High, The**	*com AYC*
—	3	1	**Not Guilty**	*mel A*
—	7	5	**October Man, The**	*cri-mys A*
—	2	2	**Oklahoma Badlands**	*wes AYC*
—	3	2	**Old Los Angeles**	*mus-wes AYC*
—	7	3	**On An Island With You**	*mus-com-c AY*
—	3	6	**Open Secret**	*mel A*
—	1	2	**Overland Trails**	*wes AYC*
2	7	2	**Paisan**	*war-dr A*
—	8	3	**Panhandle**	*wes-c A*
1	10	4	**Paradine Case, The**	*mys-mel A*
—	1	3	**Passionelle**	*dr A*
2	8	3	**Pearl, The**	*dr A*
—	3	3	**Piccadilly Incident**	*war-dr A*
1	10	4	**Pirate, The**	*mus-dr-c A*
—	2	6	**Port Said**	*mel AY*
—	2	3	**Portrait of Innocence**	*dr A*
—	5	5	**Prince of Thieves, The**	*hist-dr-c AYC*
—	5	2	**Raven, The**	*mys-mel A*
—	5	1	**Raw Deal**	*cri-mel A*
—	4	1	**Razzia**	*mel A*
—	14	—	**Relentless**	*wes-c AY*
—	3	2	**Return of the Bad Men**	*wes AYC*
—	5	5	**Return of the Whistler, The**	*mys-mel AYC*
—	8	6	**River Lady**	*mel-c A*
—	1	2	**Robin Hood of Monterey**	*wes AYC*
—	4	1	**Rocky**	*dr AYC*
—	7	—	**Romance on the High Seas**	*mus-com-c A*
—	3	1	**Rose of Santa Rosa**	*mus-com AYC*
—	—	3	**Rossini**	*mus-biog A*
—	6	5	**Ruthless**	*dr A*
—	3	11	**Saigon**	*mel A*
—	6	8	**"Sainted" Sisters, The**	*dr A*
—	8	6	**Scudda-Hoo! Scudda-Hay!**	*nov-c AYC*
4	11	3	**Search, The**	*war-dr AY*
—	3	9	**Secret Beyond the Door**	*mel A*
—	1	4	**Secret Service Investigator**	*cri-mel AY*
—	17	2	**Senator Was Indiscreet, The**	*com A*
—	4	4	**Shaggy**	*dr-c AYC*
—	3	3	**Shakuntala**	*dr A*
—	1	5	**Showtime**	*mus-com A*
—	8	10	**Sign of the Ram, The**	*dr A*
—	—	4	**Silent Conflict**	*wes AYC*
—	3	7	**Silver River**	*wes-dr A*
4	12	1	**Sitting Pretty**	*com A*
—	2	2	**Six-Gun Law**	*mus-wes AYC*
—	1	3	**16 Fathoms Deep**	*mel-c AY*
—	11	6	**Sleep, My Love**	*cri-mel A*
—	4	4	**Slippy McGee**	*dr AYC*
—	1	2	**Smart Politics**	*mus-com AY*
—	6	4	**Smart Woman**	*dr A*
—	5	6	**Smugglers, The**	*mel-c A*
—	4	3	**So Evil My Love**	*cri-mel A*
—	5	2	**So This Is New York**	*com A*
—	2	3	**Son of the Regiment**	*war-dr A*
—	2	2	**Song of Idaho**	*mus-wes AY*
—	2	5	**Speed to Spare**	*mel A*
—	2	2	**Spring**	*mus-com A*
—	1	4	**Stage Struck**	*cri-mel A*
—	1	4	**Stage to Mesa City**	*wes AYC*
4	9	3	**State of the Union**	*dr A*
—	5	1	**Story of Tosca, The**	*mus-dr A*
—	5	—	**Strawberry Roan, The**	*mus-wes-c AYC*
1	8	3	**Summer Holiday**	*mus-com-c A*
—	—	5	**Sword of the Avenger**	*dr-c AY*
2	11	2	**T-Men**	*doc-dr AYC*
—	1	3	**Take My Life**	*mys-mel A*
—	5	4	**Tarzan and the Mermaids**	*adv AYC*
—	3	6	**Tenth Avenue Angel**	*dr AY*
—	2	1	**They Are Not Angels**	*war-dr A*
—	3	4	**Thirteen Lead Soldiers**	*cri-mel AY*
—	8	7	**Three Daring Daughters**	*mus-com-c A*
—	8	5	**Time of Your Life**	*com A*
1	13	2	**To the Ends of the Earth**	*doc-mel AY*
—	5	10	**To the Victor**	*war-mel A*
—	—	4	**Tornado Range**	*mus-wes AYC*
—	—	5	**Trapped by Boston Blackie**	*mys-mel AY*
4	8	4	**Treasure of the Sierre Madre, The**	*dr A*
—	—	4	**Twins**	*com A*
—	1	3	**Under California Stars**	*mus-wes-c AYC*
—	3	1	**Under Colorado Skies**	*wes-c AYC*
—	3	5	**Untamed Fury**	*mel A*
—	6	9	**Up in Central Park**	*mus-com A*
—	—	5	**Vacation Days**	*mus-wes AYC*
—	1	4	**Vicious Circle, The**	*cri-dr A*
1	12	3	**Voice of the Turtle, The**	*com A*
—	8	2	**Volpone**	*com A*
—	3	2	**Voyage Surprise**	*com AY*
—	3	4	**Wallflower**	*com A*
—	4	2	**Waterfront at Midnight**	*cri-mel A*
—	1	2	**West of Sonora**	*mus-wes AYC*
—	2	5	**Western Heritage**	*wes AYC*
—	—	4	**Westward Trail, The**	*mus-wes AY*
—	1	3	**Whirlwind Raiders**	*mus-wes AYC*
—	—	3	**White Stallion**	*wes AYC*
—	3	2	**Who Killed Doc Robin?**	*cri-com AYC*
—	3	—	**Who Killed Santa Claus?**	*dr A*
—	—	4	**Will It Happen Again?**	*war-doc A*
—	2	12	**Winter Meeting**	*dr A*
—	1	5	**Woman from Tangier, The**	*mel A*
—	9	4	**Woman in White, The**	*cri-mel A*
—	11	6	**Woman's Vengeance, A**	*mel A*
—	1	7	**Women in the Night**	*war-mel A*
—	4	3	**Wreck of the Hesperus, The**	*dr AYC*
—	11	5	**You Were Meant for Me**	*mus-com AY*

The Consumers' Observation Post

(*Continued from page 4*)

seize and relinquish quickly. The Eversharp Company in its 1947 annual report to stockholders showed a deficit of nearly three and a half million dollars, largely due to its having to replace unsatisfactory pens under its guarantee policy, and to competitive price reductions. The fashion has had its day, and a lot of ball pens are lying in desk drawers and cabinets unused and unusable.

* * *

THE HIGH DEATH RATE among victims of stomach cancer is, in the opinion of Dr. Arthur W. Allen, President of the American College of Surgeons, due to delayed diagnosis and recognition of the ailment. He warned that the use of proprietary antacid preparations was dangerous because they gave temporary relief in the early stages of the dread disease and prevented the patient's seeking prompt treatment.

* * *

BREAD STORED IN THE REFRIGERATOR will not mould, points out a little pamphlet on Grain Products, put out by the Household Finance Corporation. It does, however, develop a stale, dry, hard crust more quickly than if it is stored in a well-ventilated bread box. Put the heel of the loaf back on the cut end to help prevent the rest from drying out, and always wrap a cut loaf in wax paper rather than in cloth.

* * *

FM RADIO BROADCASTS were once hailed as a great advance in radio technique, but listeners are rapidly becoming disillusioned. In a radio "clinic" held on the West Coast, there were several reasons advanced for present lack of interest in FM, notably the poor quality of FM broadcasts and the bad engineering of many FM receivers. It appears that listeners try the FM band on their

Get on the bandwagon for CR's 1948-49 Annual Cumulative Bulletin!

CR's *Annual Cumulative Bulletin* for 1948-49, which summarizes a wide range of CR's previous reports up to July 1948 and presents much new material that has never before appeared in any previous *CR Bulletin*, is expected off the press the last week in September. Those who place their advance orders now may expect to receive their copy early in October.

This 200-page book is known as the consumer's handbook of buying. As those who have used it in previous years can testify, it is a handy compilation of CR's listings, carefully indexed for ready reference, that has enabled them to save much more than its modest price by following its advice.

For convenience in looking up information, the many reports and discussions are grouped in sections which include: Household Appliances and Equipment; Automobile Care, Accessories, and Supplies; Household Supplies and Furnishings; Heating Equipment and Fuel; Housing, Home Maintenance, and Repair; Cosmetics and Toilet Supplies; Radio and Phonograph Equipment; Photographic Equipment; Textiles and Clothing. Helpful and very practical advice on what to look for and what to avoid in making a purchase is given in addition to ratings of products by brand name.

READY IN OCTOBER

To place your advance order now, use convenient blank on p. 30!

sets a few times, get low-quality programs and poor reception because of the low grade of most FM sets that are made nowadays, and then decided to forget the whole thing.

* * *

NOW AVAILABLE and approved by Underwriters' Laboratories, Inc., is an aluminum fuel oil tank made by Turrill, Inc., Cincinnati 4. The tank has a capacity of 275 gallons and is designed to be installed in the basement. Its retail price is about $80.

* * *

NEW OR NEWLY AVAILABLE:

Scots Guard Fire Alarm, sold by Scots Guard, Inc., 111 Grand St., Waterbury 5, Conn., at $4.75, is a fairly well-made gadget intended to be hung about 18 inches from the ceiling in a room near a heating furnace or other potential fire hazard. When temperature reaches 130°, a metal bellows expands and actuates a manually wound bell. The bell rings for about 45 seconds at top sound, then tapers off to nothing in the next 25 seconds. The device detected heat satisfactorily, but like many other so-called "Fire Alarms," the bell could be heard only by a person in fairly close proximity to it; it was not sufficiently loud to be heard under various conflicting noise conditions in the home (not heard as far as a telephone bell or alarm clock). To be certain in effect, such a device would need to be connected to several auxiliary electric bells distributed through the house, in bedrooms, kitchen, etc.

Sulfoam (Lawrence Laboratories, Brooklyn, N. Y.; 59 cents per 6-oz. bottle) is a milky liquid used as a shampoo and offered as a hygienic treatment for removing dandruff scales. Its composition was found to be approximately 78% water; 16% potassium soap; 3% mineral oil, with free sulfur and free fatty acid totaling about 1%; 2% free coconut oil; and 0.6% lanolin. The sulfur present is evidently intended to have curative values in connection with hair loss or baldness as sulfur is often used in "hair tonics." The presence of this medicinal substance and the claim of Sulfoam to "relieve itching scalp" puts the product into the class of medicines rather than cosmetics, and it would hardly warrant recommendation as a product for general or cosmetic use. The amount of free sulfur present in the product in question does not, however, appear to be enough to impart any characteristic medicinal properties to the liquid. (Sulfur is ordinarily employed, according to medical authority, for local application in concentrations ranging from 2% to 10%.) It is considered there is no justification for the inclusion of sulfur in the small amount present in Sulfoam, and it may be noted that sulfur when used over a considerable period in adequate amounts may result in the production of an inflammation of the skin known as dermatitis venenata.

Consumers' Research, Inc.
Washington, N. J.

Please enter my order as checked. It is understood that my handling of any CR material which is marked "The analyses of commodities, products, or merchandise appearing in this issue of the Consumers' Research Bulletin are for the sole information of Consumers' Research subscribers" will be in accordance with that direction.

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CR's Ten-Watt High-Fidelity All-Triode Amplifier—

Designed to be Assembled at Home

IN CR's BULLETIN for February 1938, an article appeared under the title "High-Fidelity Radio at Low Cost." Construction details were given for a simple audio amplifier of good design and performance. There was an enthusiastic response to this article, and inquiries are still received regarding it, after 10 years.

Present correspondence indicates that a large number of readers of CR's BULLETINS would like an up-to-date article describing the construction of an amplifier for use with the improved loudspeakers and phonograph pickups available today. An article describing such an amplifier and giving complete schematic diagrams, performance data, and list of parts required has been prepared.

The amplifier described therein is quite similar to the one explained in the 1938 article. In both cases, triode output tubes are used in a self-bias arrangement. Important improvements incorporated in the present model are: built-in preamplification and equalization for the new magnetic pickups, and separate tone controls for high and low frequencies. Pickups such as the *General Electric Variable Reluctance* unit, the *Pickering*, the *Clarkstan 201 RV*, etc., can be used with the equalization furnished. The tone controls give both a boosting and cutting action at low and high frequencies. Provision is made for feeding in and amplifying the signal from a radio tuner, such as the *Pilotuner*—a good low-priced FM tuner.

The cost for the parts used in this amplifier has been kept as low as possible, consistent with good performance. The design has been made simple, and no critical circuit elements are employed. Used with one of the high-quality magnetic pickups and one of the good low-priced extended-range loudspeakers, top-quality, high-fidelity reproduction is possible at a reasonable cost.

The power output at 2.5% distortion is 11.8 watts at mid-frequencies, 6.5 watts at 50 cycles, and 10.5 watts at 10,000 cycles. The 50-cycle output for 5% harmonic distortion is 8.6 watts.

The frequency response with the tone controls in the "neutral" positions is within 2 db. from 20 to 15,000 cycles.

The amplifier described can be constructed by the mechanically inclined person who can follow a schematic diagram and do a neat wiring job. It is suggested that the help of a qualified technician possessing suitable test equipment be employed, if practicable, in checking the completed amplifier for proper operation before it is put into use. A working schematic diagram (8½ x 11 in. or larger sheet), together with a parts list, circuit and construction and adjustment data, and useful description of operating characteristics, etc., can be obtained from Consumers' Research for a remittance of $1, as soon as ready, which it is believed will be about August 20. (Details are not included in this BULLETIN because they will be chiefly of interest to "high-fidelity fans" and are of too technical a nature to be of interest to the general subscriber.)

The total cost for the parts needed to build this amplifier is approximately $40, including tubes. The parts needed may be obtained through any good radio parts distributor. (Two well-known parts dealers doing a large mail-order business are: Allied Radio Corp., 833 W. Jackson Blvd., Chicago 7; and Radio Wire Television Co., 100 Sixth Ave., New York 13.)

For those persons interested in a completely wired and assembled unit, the Fidelity Sound Engineering Labs., 20497 Warrington Drive, Detroit 21, will supply this amplifier at the tentative price of $65, including tubes. (Shipments will be made by express, collect.) Orders should be accompanied by remittance in full or a deposit of at least $25. Orders will be promptly acknowledged, and a tentative delivery date given. (Sixty days may be required for delivery if the number of orders received for the amplifier is large.)

A future article will describe an amplifier of somewhat more complicated and costly construction, which will give slightly better performance. It will use triode ouput tubes in a *fixed-bias* arrangement, and have a rated power output of about 15 watts. However, it is believed that only the very exceptional critical and trained listener will be able to detect any difference in performance between the two amplifiers.

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Table of Contents

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II. Selling Glamour, a brief review of cosmetic advertising
III. Protection for the Unwary, a study of the activities of the Food & Drug Admin. and the Federal Trade Commission
IV. Care of the Hair
V. Cheating Time, and Health, with Hair Dyes
VI. Care of the Hands and Nails
VII. Heightening the Effect, make-up preparations
VIII. Keeping Dainty, depilatories and deodorants
IX. Preserving the Complexion with Cosmetic Creams
X. Keeping the Weight Down
XI. The Beauty of Cleanliness
XII. What Cosmetics Will and Will Not Do

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